

MT. JULIET PUBLIC WORKS

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GROUT CONNECTION

CAST IRON FRAME & COVER
AS MANUFACTURED BY
JOHN BOUCHARD & SONS CO.
NO.2418, OR APPROVED EQUAL

PLAN

TOP OF CASTING ELEVATION
(SEE PLANS)

NO. 5 REINFORCING
BAR @ 8" O.C.

FORM SMOOTH INVERT
TO D/2 HEIGHT

SECTION "A"

NOTE:

1. WHEN DEPTH EXCEEDS 4' INCREASE MIN. WIDTH TO 4'-0".
2. WHEN DEPTH IS 4' OR LESS, BRICK MAY BE USED IN LIEU OF CONCRETE SIDE WALLS.
3. USE LADDER BARS (DWG. E-103) FOR DEPTH EXCEEDING 4'.

AREA DRAIN

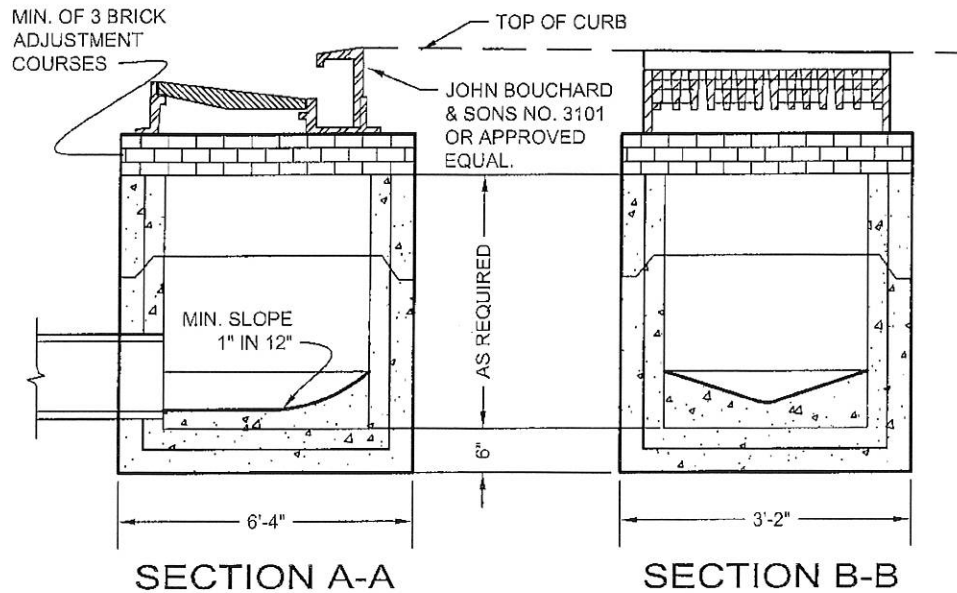
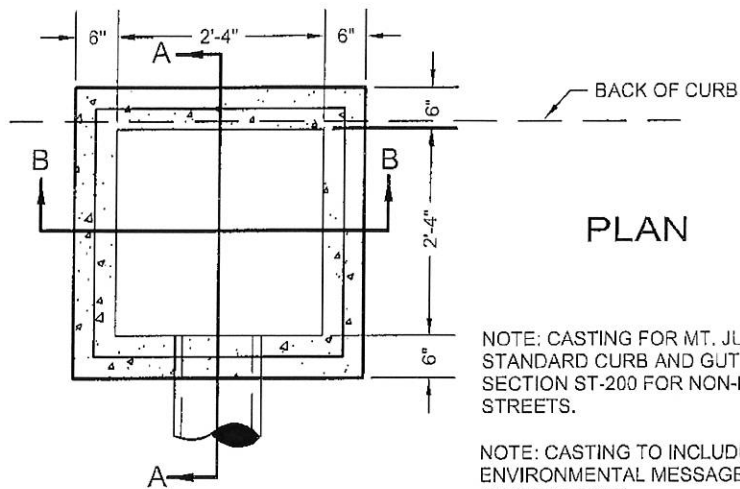
DETAIL NO.: B-5
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

48" X 6" OPENINGS
ALL FOUR SIDES

DIAMETER
(Ø)

ELEVATION



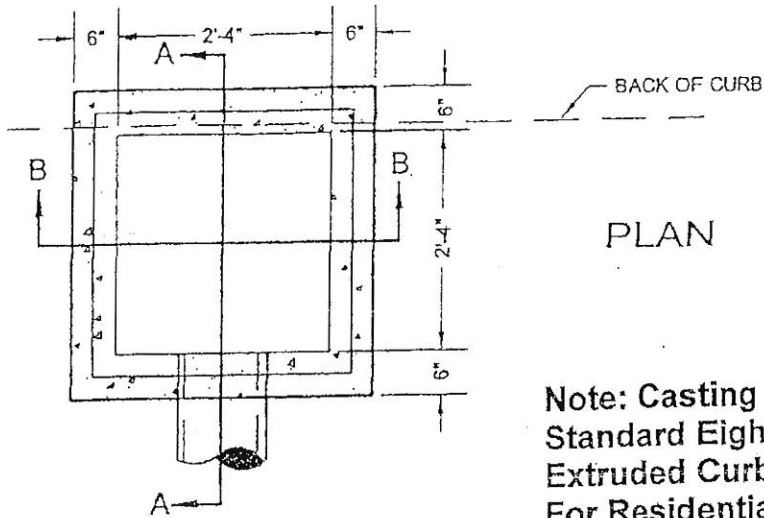
CONCRETE: 4000 PSI AT 28 DAYS
MIN. REINFORCEMENT: 0.14 SQ. IN./SQ. FT.
GRADE 60 STEEL

SINGLE INLET (PRECAST)

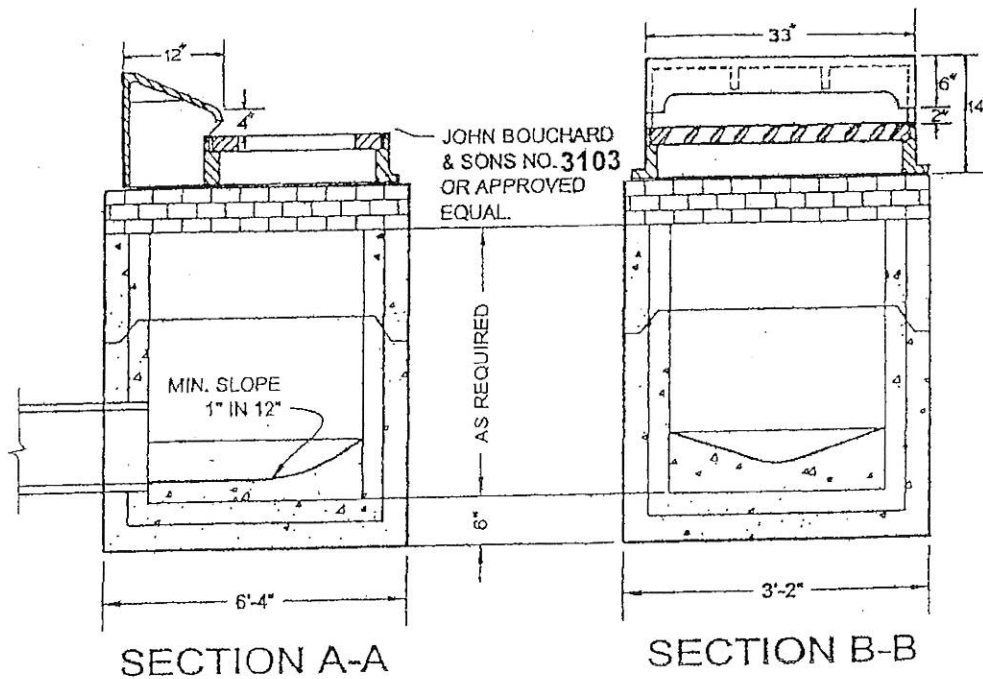
DETAIL NO.: DR-105

SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



Note: Casting for Mt. Juliet
Standard Eight inch
Extruded Curb ST-203
For Residential Streets



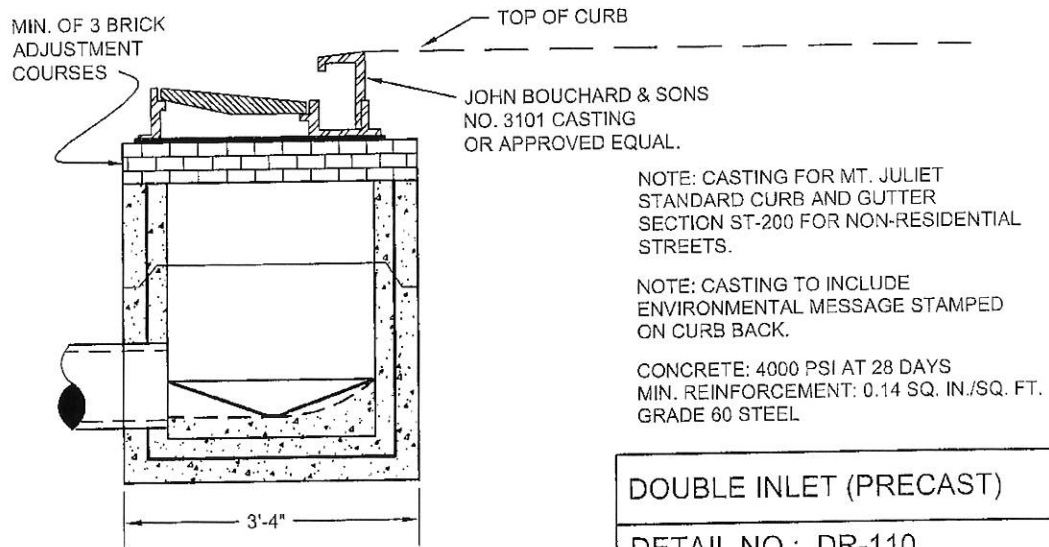
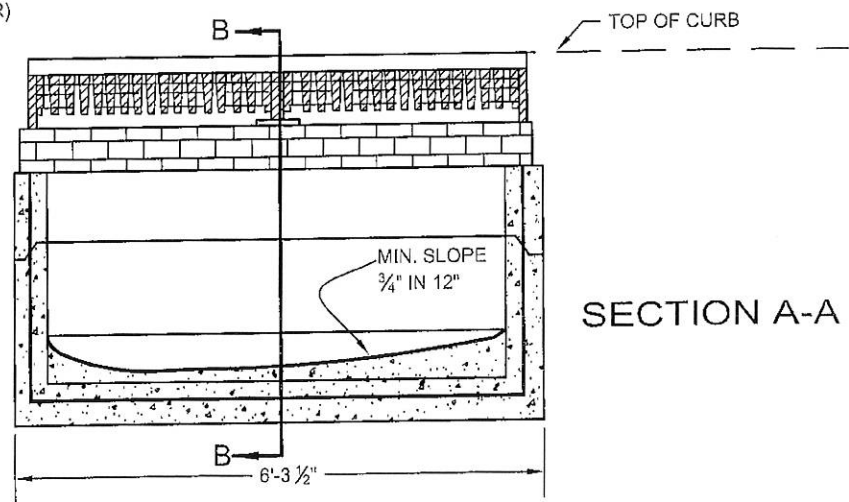
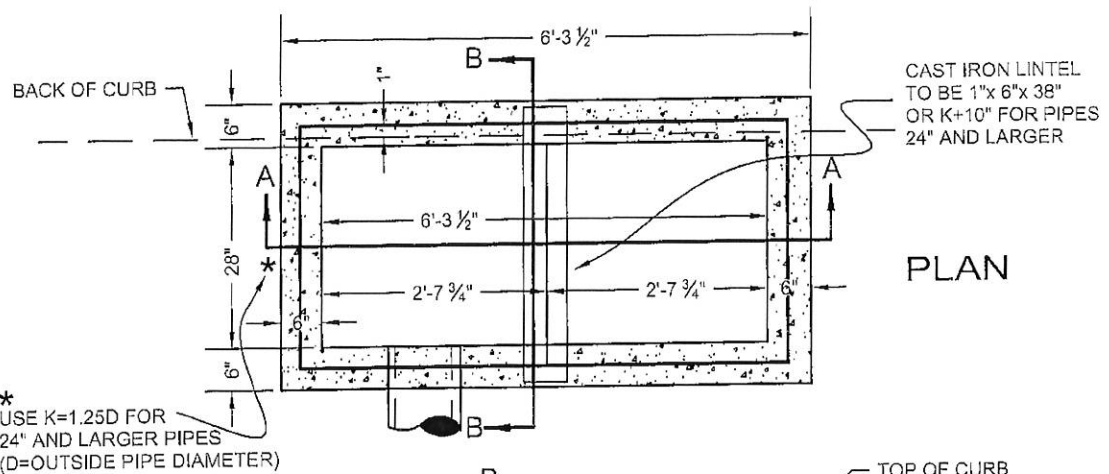
CONCRETE: 4000 PSI AT 28 DAYS
MIN. REINFORCEMENT: 0.14 SQ. IN./SQ. FT.
GRADE 60 STEEL

SINGLE INLET (PRECAST)

DETAIL NO.: DR-106

SCALE: NONE

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PUBLIC WORKS DEPARTMENT



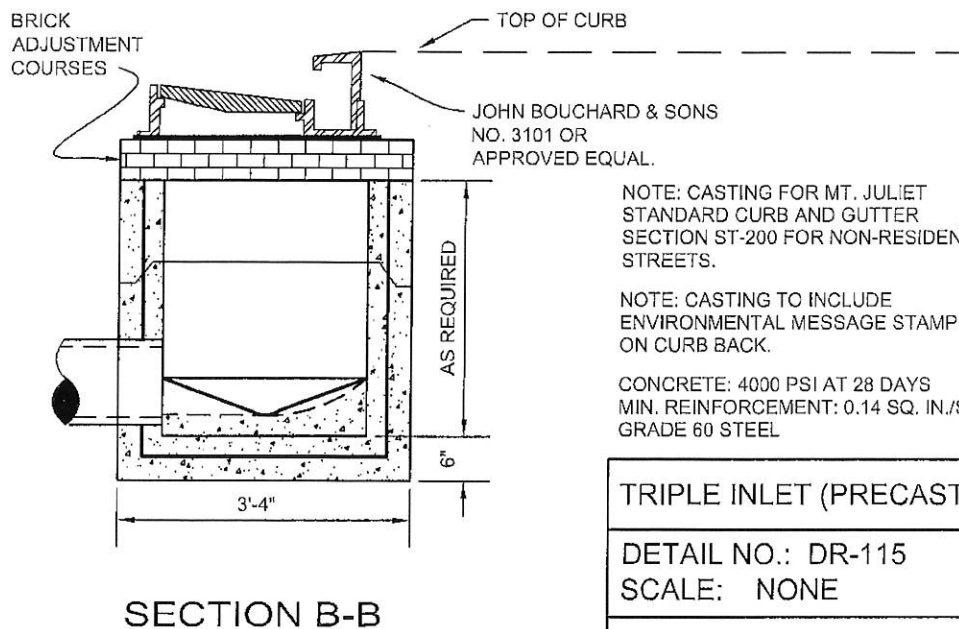
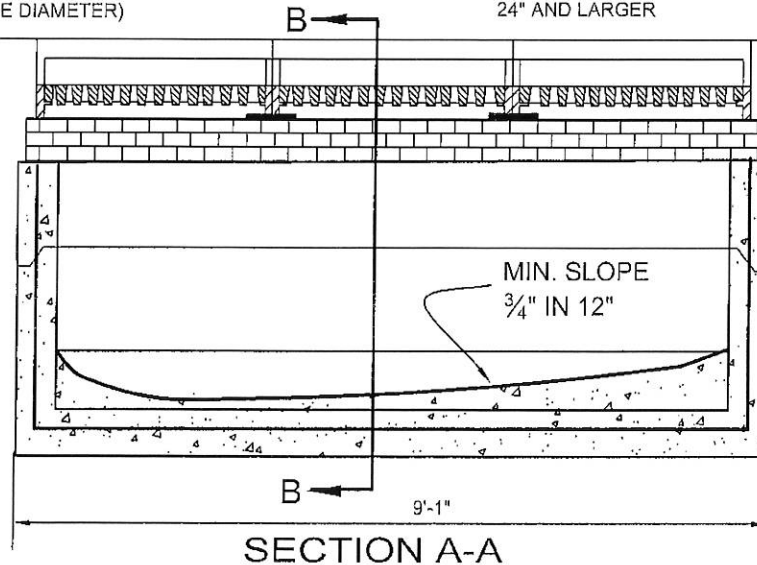
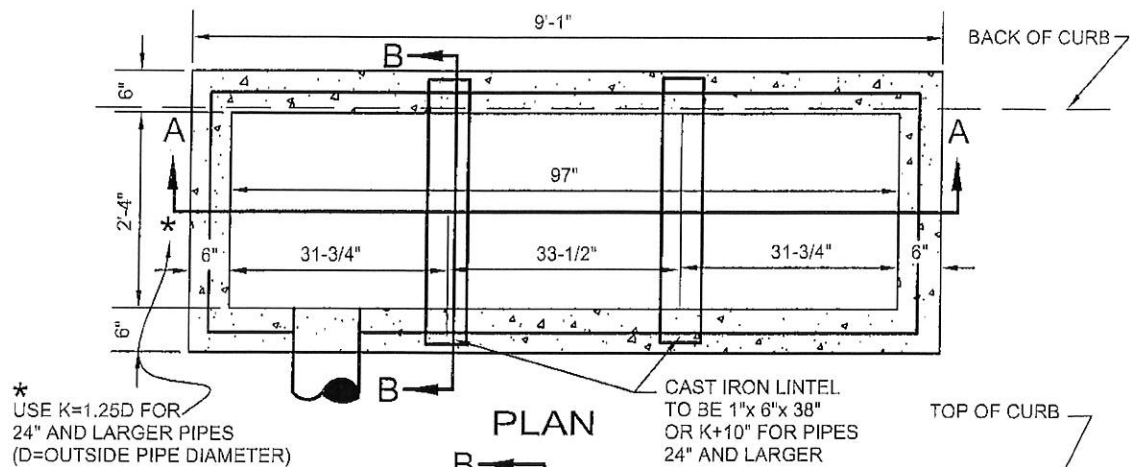
SECTION B-B

DOUBLE INLET (PRECAST)

DETAIL NO.: DR-110

SCALE: NONE

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PUBLIC WORKS DEPARTMENT



NOTE: CASTING FOR MT. JULIET
STANDARD CURB AND GUTTER
SECTION ST-200 FOR NON-RESIDENTIAL
STREETS.

NOTE: CASTING TO INCLUDE
ENVIRONMENTAL MESSAGE STAMPED
ON CURB BACK.

CONCRETE: 4000 PSI AT 28 DAYS
MIN. REINFORCEMENT: 0.14 SQ. IN./SQ. FT.
GRADE 60 STEEL

TRIPLE INLET (PRECAST)

DETAIL NO.: DR-115

SCALE: NONE

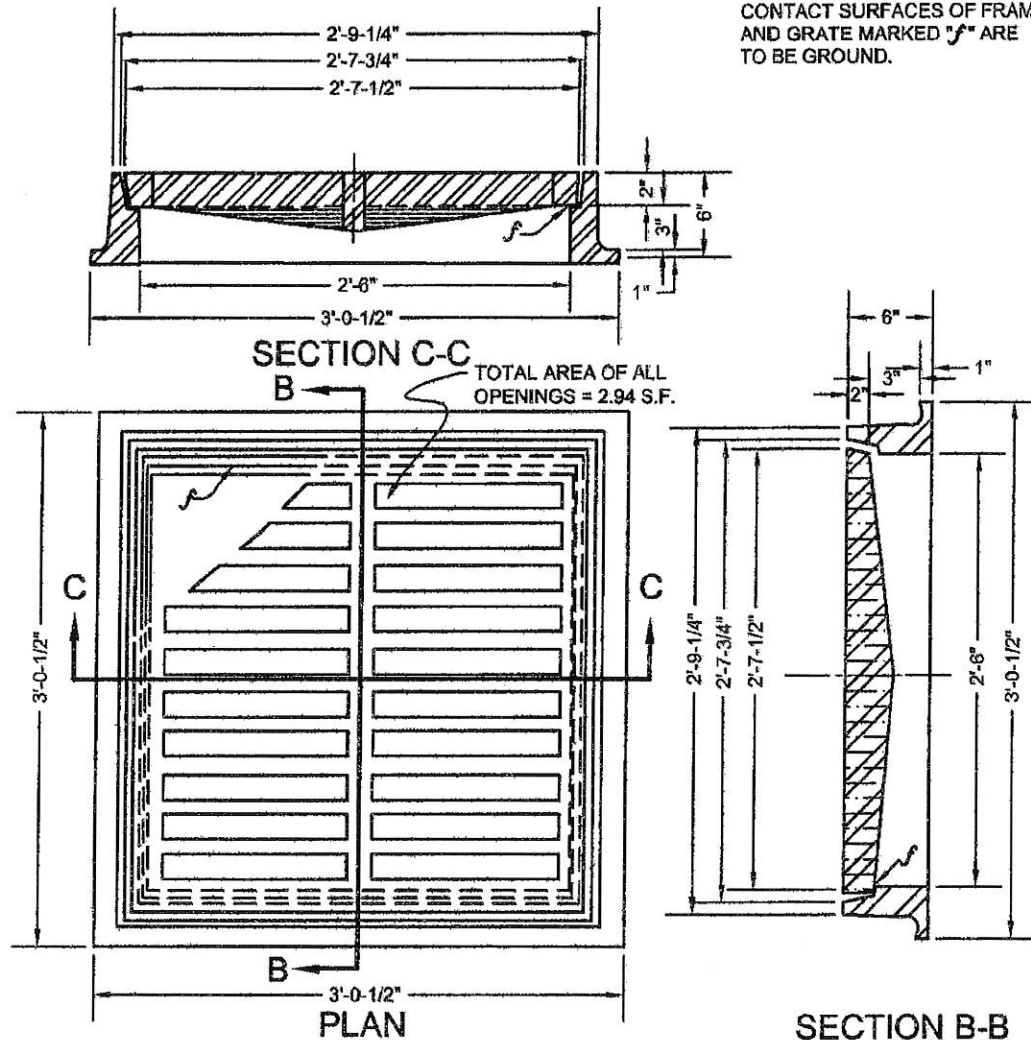
CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

NOTES:

OMIT BASE FLANGE ON ONE SIDE OF FRAME FOR DOUBLE INSTALLATIONS AND END FRAMES OF OTHER MULTIPLE INSTALLATIONS. OMIT ON TWO (2) SIDES (OPPOSITE) FOR CENTER UNITS OF MULTIPLE INSTALLATIONS. FOR INSTALLATION WITH CURB INLET TYPE " " OMIT BASE ON ONE SIDE OF SINGLE, TWO ADJACENT SIDES OF DOUBLE, AND THREE SIDES OF CENTER UNITS OF OTHER MULTIPLE INSTALLATIONS.

CASTINGS TO BE CLEANED AND PAINTED WITH BITUMINOUS COATING AFTER MACHINING.

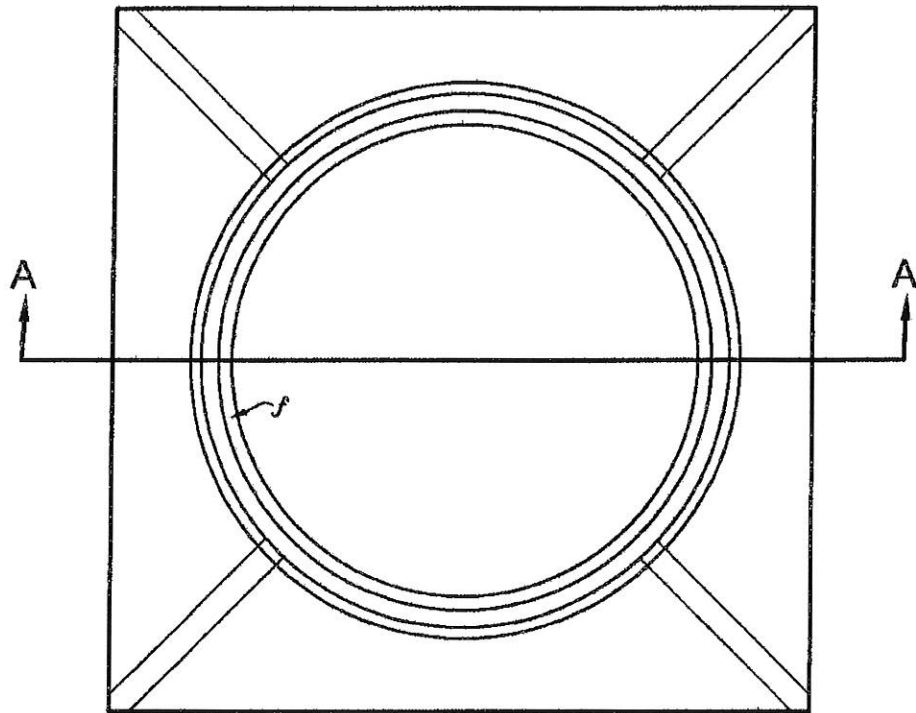
NOTE:
CONTACT SURFACES OF FRAME
AND GRATE MARKED "f" ARE
TO BE GROUND.



**FRAME AND GRATE FOR
FLUSH MOUNTED INLET**

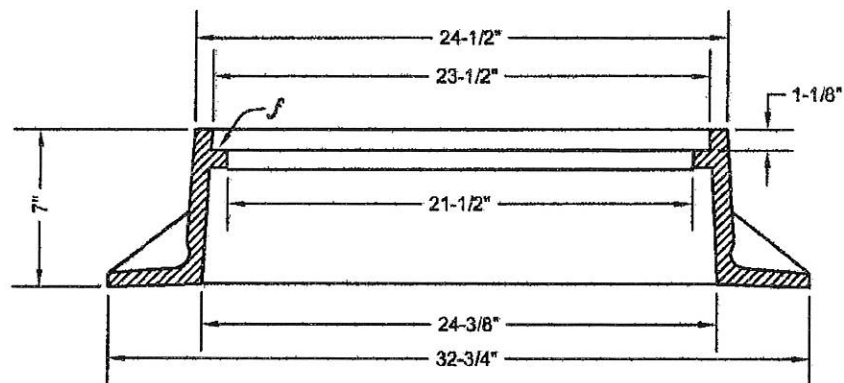
DETAIL NO.: DR-132
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



NOTE: CONTACT SURFACE OF FRAME MARKED "f"
IS TO BE MACHINED.

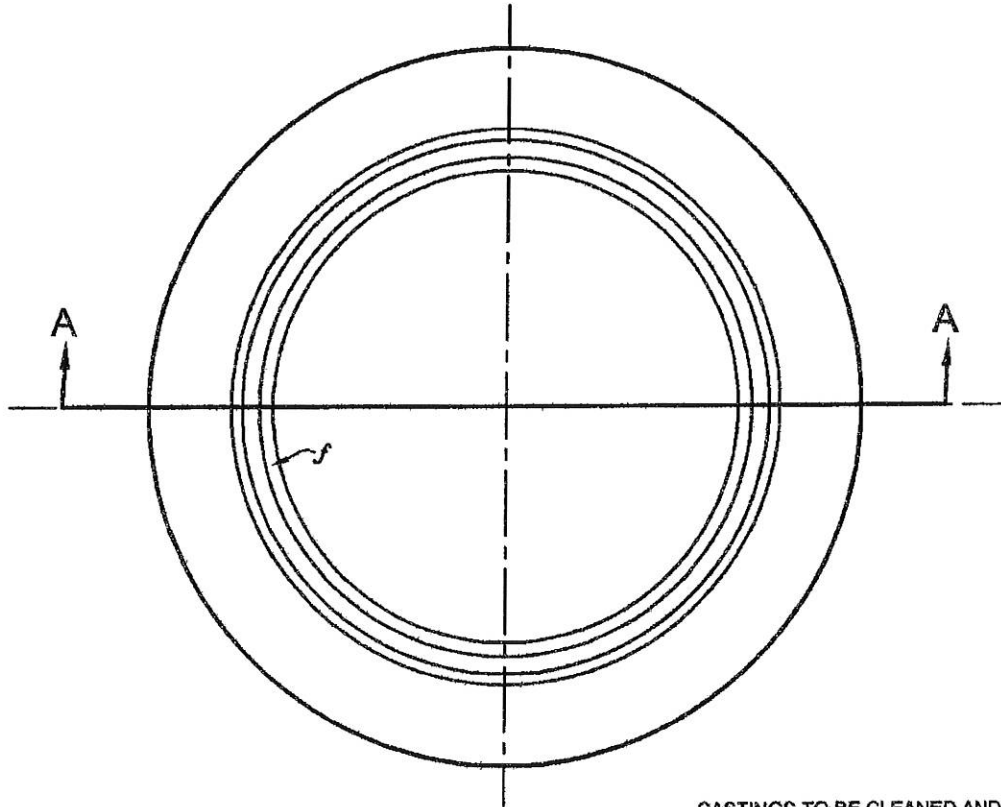
CASTINGS TO BE CLEANED AND
PAINTED WITH BITUMINOUS COATING.



SQUARE MANHOLE FRAME

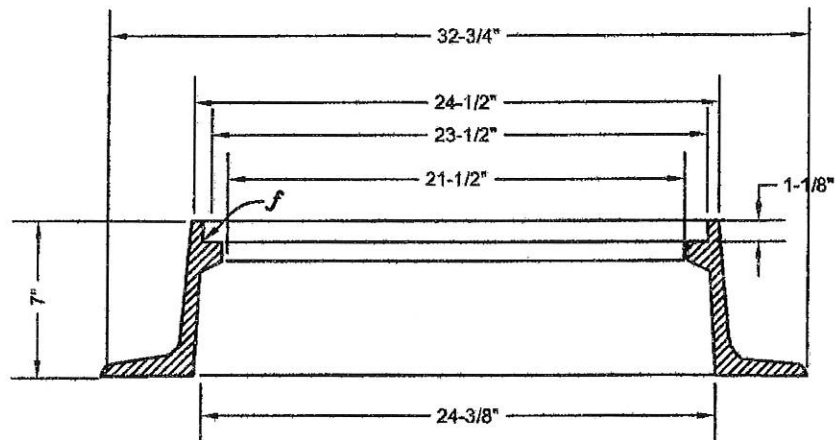
DETAIL NO.: DR-133
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



NOTE: CONTACT SURFACE OF FRAME MARKED "f" IS TO BE MACHINED.

CASTINGS TO BE CLEANED AND PAINTED WITH BITUMINOUS COATING.

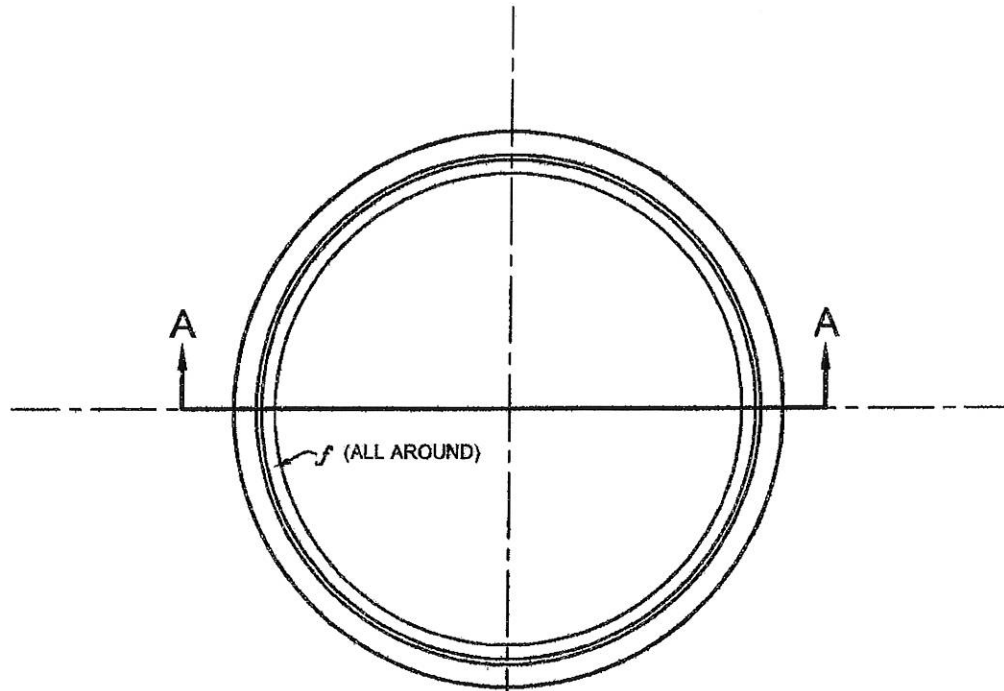


SECTION A-A

ROUND MANHOLE FRAME

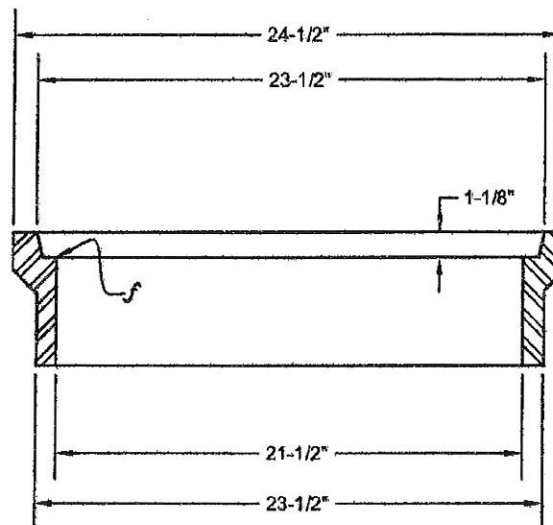
DETAIL NO.: DR-134
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



PLAN

NOTE: CONTACT SURFACE OF FRAME MARKED "f" IS TO BE MACHINED.



SECTION A-A

CASTINGS TO BE CLEANED AND
PAINTED WITH BITUMINOUS COATING.

ROUND MANHOLE FRAME
(RECESSED TYPE)

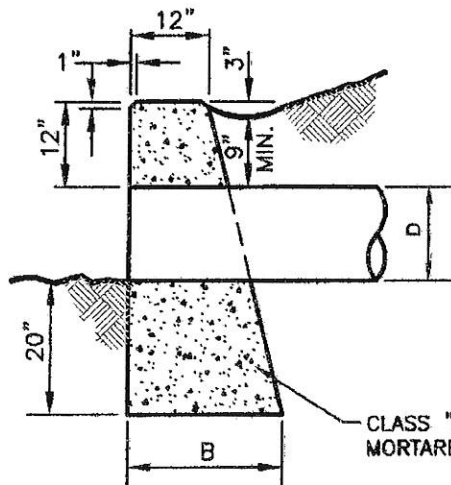
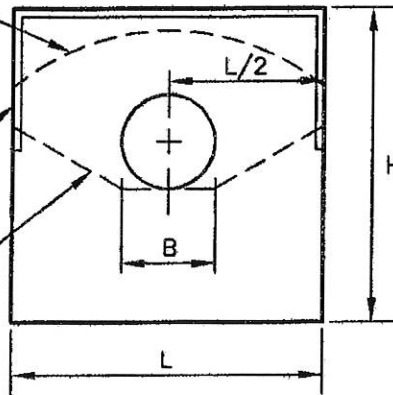
DETAIL NO.: DR-135
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

EARTH
BEYOND

ALL EXPOSED
EDGES TO BE
CHAMFERED
ONE INCH

SLOPE SIDES
OF DITCH AS
SHOWN ON
PLAN

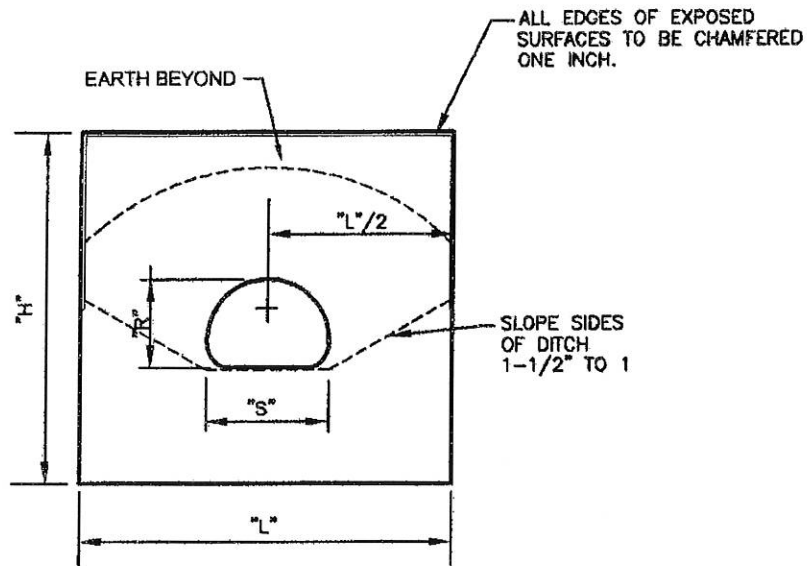


D	H	B	L
12"	3'-8"	1'-11"	4'-0"
15"	3'-11"	1'-11 3/4"	5'-0"
18"	4'-2"	2'-0 1/2"	6'-0"
21"	4'-5"	2'-1 1/4"	7'-0"
24"	4'-8"	2'-2"	8'-0"
30"	5'-2"	2'-3 1/2"	9'-0"

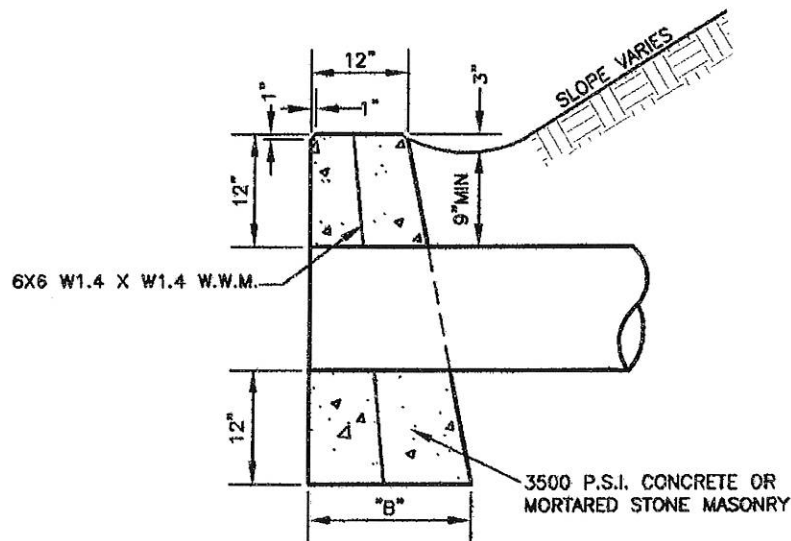
STRAIGHT ENDWALL FOR CIRCULAR PIPE

DETAIL NO.: DR-150
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



ELEVATION



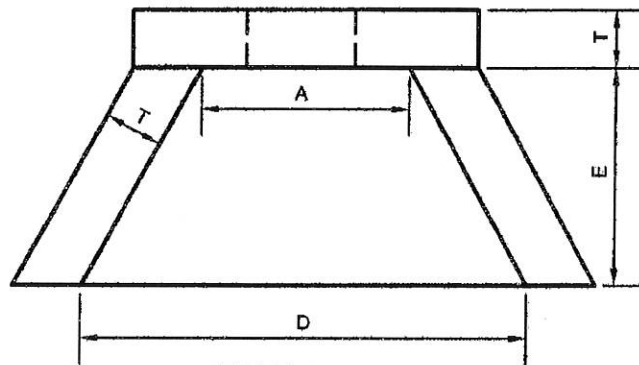
SECTION

S x R	H	B	L
18"x11"	3'-7"	1'-10 3/4"	4'-3"
22"x13 1/2"	3'-9"	1'-11 1/4"	5'-1"
26"x15 1/2"	4'-0"	2'-0"	6'-1"
28" 1/2"x18"	4'-2"	2'-0 1/2"	6'-11"
36 1/4"x22"	4'-6"	2'-1 1/2"	8'-6"
43" x 27"	4'-11"	2'-2 3/4"	10'-4"
50" x 31"	5'-3"	2'-3 3/4"	11'-11"

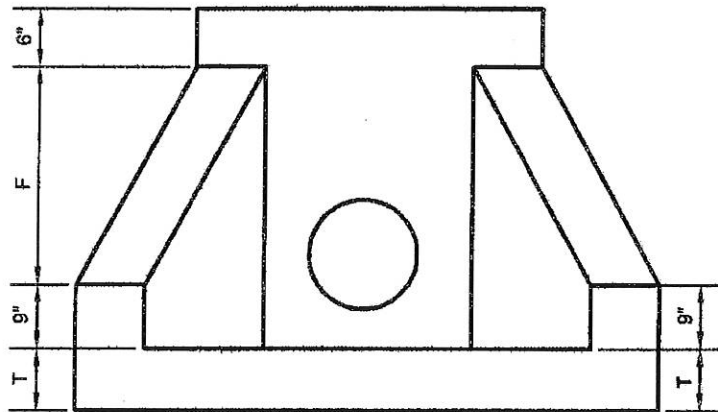
**STRAIGHT ENDWALL
FOR ARCH PIPE**

DETAIL NO.: DR-151
SCALE: NONE

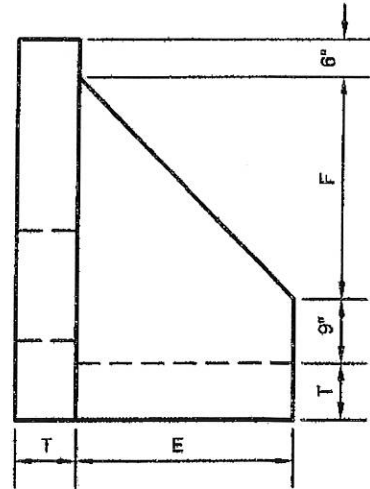
CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



TOP VIEW



FRONT VIEW



SIDE VIEW

TABLE OF DIMENSIONS

PIPE SIZE	A	D	E	F	T (MIN.)
15"	2'-6"	5'-0"	2'-6"	1'-9"	6"
18"	2'-6"	5'-0"	2'-6"	1'-9"	6"
21"	2'-6"	5'-0"	2'-6"	1'-9"	6"
24"	4'-0"	6'-6"	4'-0"	3'-3"	6"
30"	4'-0"	6'-6"	4'-0"	3'-3"	6"
36"	5'-6"	8'-0"	3'-6"	4'-5"	6"
42"	5'-6"	8'-0"	3'-6"	4'-5"	6"
48"	5'-6"	8'-0"	3'-6"	4'-5"	6"
54"	7'-0"	9'-5"	4'-6"	5'-9"	6"
60"	7'-0"	9'-5"	4'-6"	5'-9"	6"
66"	8'-6"	11'-0"	5'-6"	6'-11"	6"
72"	8'-6"	11'-0"	5'-6"	6'-11"	6"

CONCRETE:

4000 PSI AT 28 DAYS REINFORCED WITH NO. 4 BARS 10" C/C EACH WAY WITH WINGS AND TOE SLAB DOWELLED TO HEADWALL WITH NO. 5 BARS.

3/4" CHAMFER ON ALL EXPOSED EDGES.

CONCRETE HEADWALL

DRAWING NO.: DR-152

SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

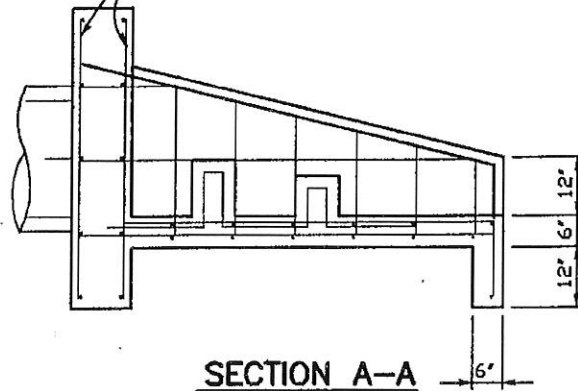
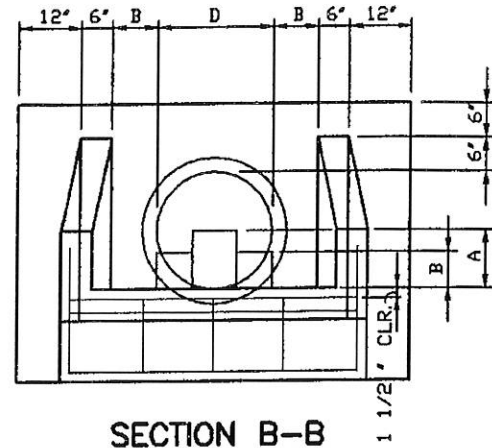
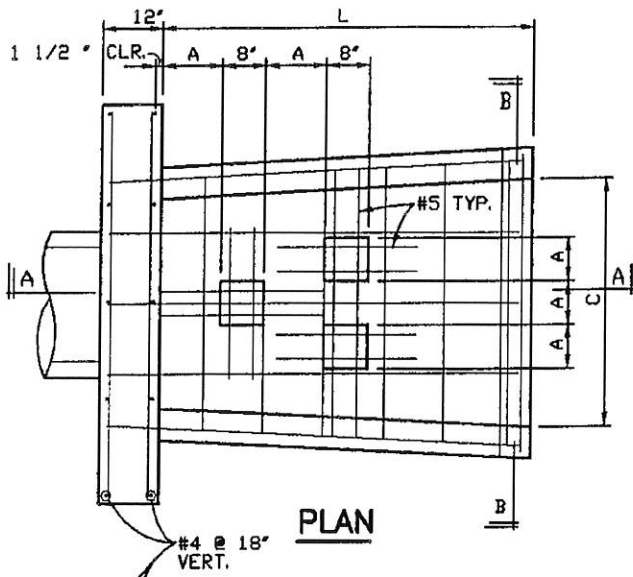


TABLE OF DIMENSIONS (IN INCHES)												
D	18	21	24	27	30	33	36	42	48	54	60	
A	9	10	12	14	15	16	18	21	24	27	30	
B	6	7	8	9	10	11	12	14	16	18	20	
C	32	42	48	54	60	66	72	84	96	108	120	
L	54	63	72	81	90	99	108	126	144	162	180	

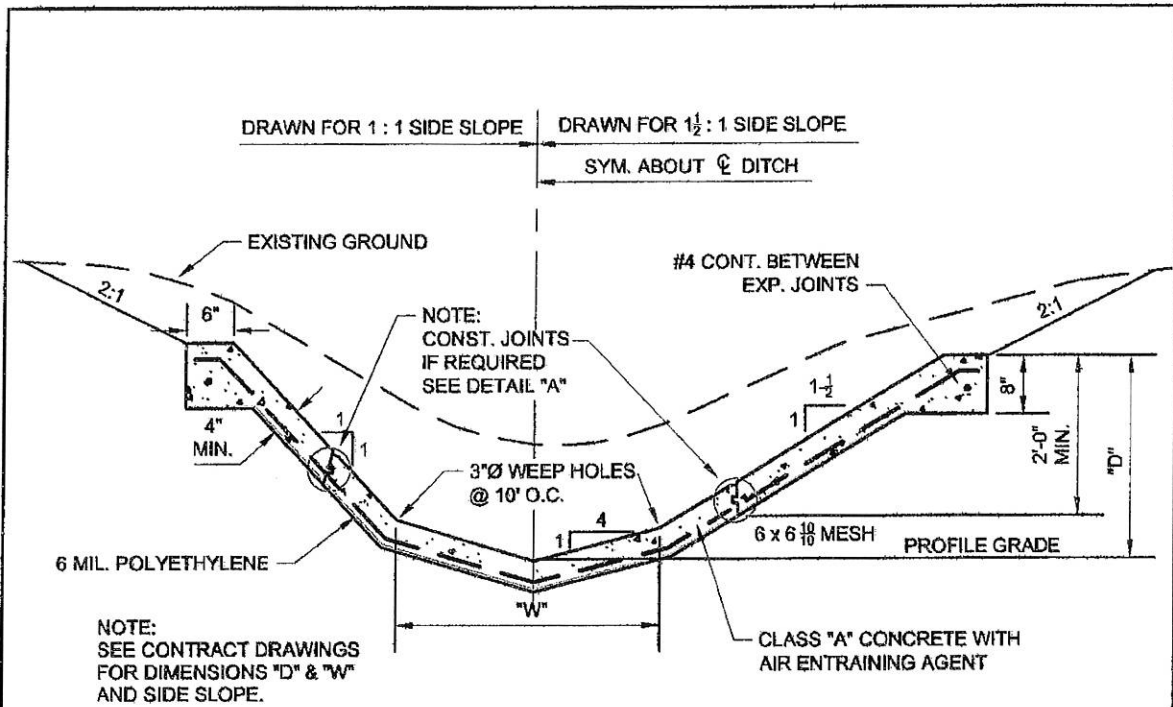
NOTES:

1. 1/2" CHAMFER ON ALL EXPOSED EDGES OF CONCRETE.
2. ALL REINF. STEEL SHOWN TO BE #4 @ 12" EACH WAY, W/ 2" MIN. CLEARANCE TYP. U. D. N.
3. CONCRETE SHALL BE CLASS "A", 4000 P. S. I. @ 28 DAYS WITH ADEQUATE REINFORCING PER STATE OF TENNESSEE STANDARDS FOR PIPE LARGER THAN 30".
4. ENERGY DISSIPATING WINGWALL AS SUPPLIED BY CUSTOM DESIGN STRUCTURES, INC. WITH EROSION CONTROL BLANKET GUARANTEED TO PREVENT DOWNSTREAM EROSION FOR 25 YEAR DESIGN STORM IS AN APPROVED EQUAL.

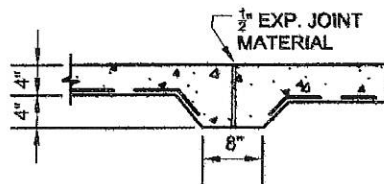
ENERGY DISSIPATING HEADWALL DETAIL

DETAIL DR-153
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

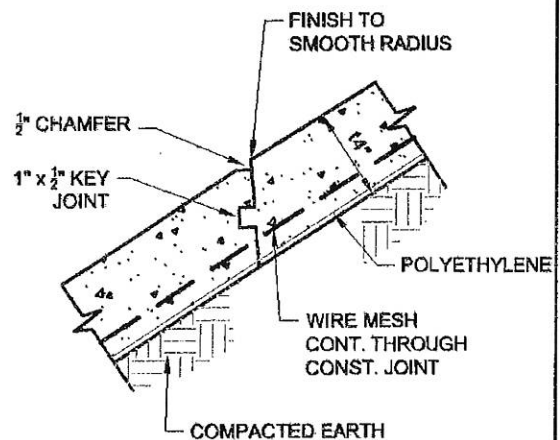


TYPICAL SECTION
 NOT TO SCALE



NOTE:
 EXPANSION JOINTS TO BE
 PLACED AT 40' MAX. O.C.

**TYPICAL SECTION AT
 EXPANSION JOINTS**
 NOT TO SCALE



DETAIL "A"
 NOT TO SCALE

NOTE:

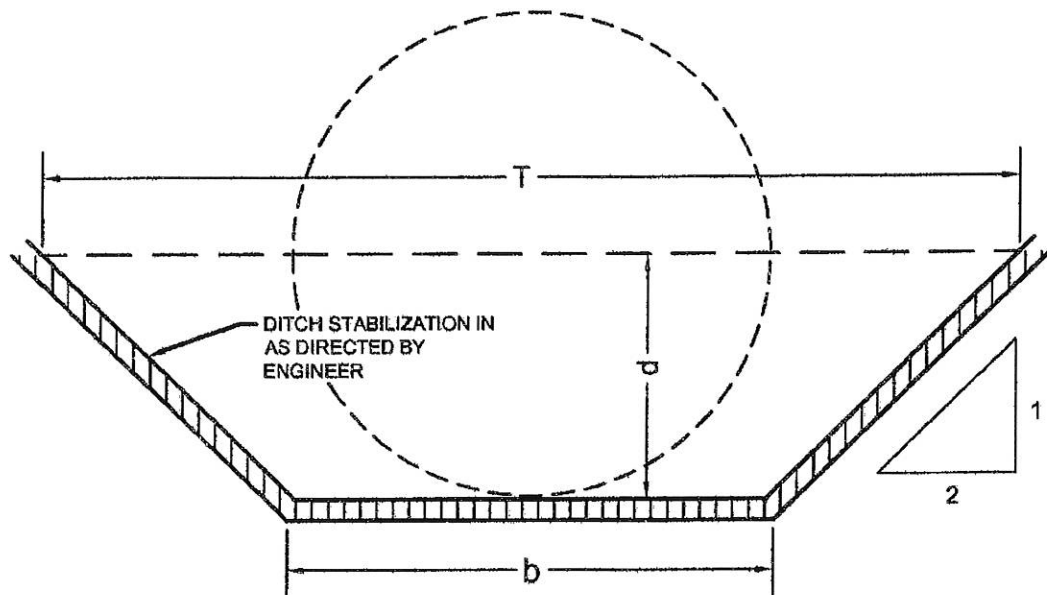
1. TRANSVERSE GROOVE MARKING TO BE PLACED IN TOP OF CONCRETE AT 10' O.C. BETWEEN EXPANSION JOINTS.
2. TOP SURFACE OF CONCRETE LINING TO HAVE A LIGHT, BROOM FINISH.

CONSTRUCTION JOINTS SHALL BE USED ONLY WHERE DEPTH OF LINING PERMITS A MINIMUM DEPTH OF 2'-0" OF LINING ABOVE THE JOINTS AS SHOWN IN TYPICAL SECTION ABOVE.

CONCRETE LINED DITCH

DRAWING NO.: DR-160
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



$b = \text{PIPE DIAMETER} + 2 \text{ FEET}$

$T = b + 4d$

$d = 1/2 \text{ PIPE DIAMETER}$

**TYPICAL STABILIZED DITCH
SECTION**

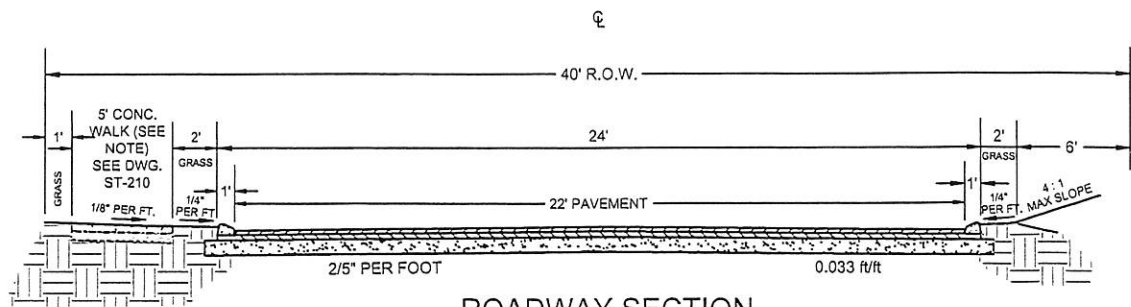
DETAIL NO.: DR-161
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

CITY OF MT. JULET
PUBLIC WORKS DEPARTMENT

DETAIL: ST-101A

LOW AND MEDIUM DENSITY
URBAN RESIDENTIAL ACCESS LANE



ROADWAY SECTION

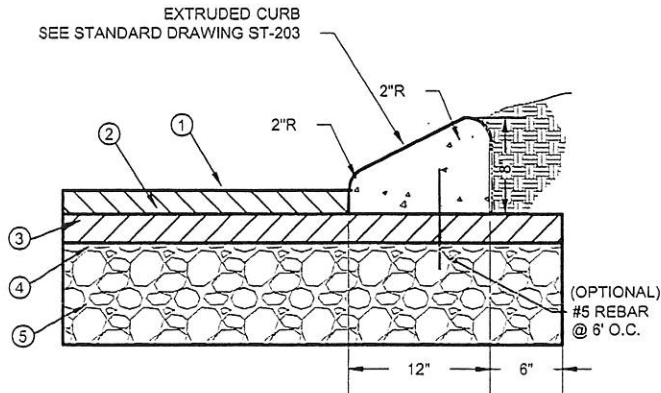
NOT TO SCALE

NOTE:

1. SERVES A MAX OF 25 DWELLINGS (200 ADT MAX)
2. UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260

PAVING SCHEDULE

- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ PRIME COAT (RS-2)
- ⑤ 8" STONE (GRADING D PUG MILL MIX)



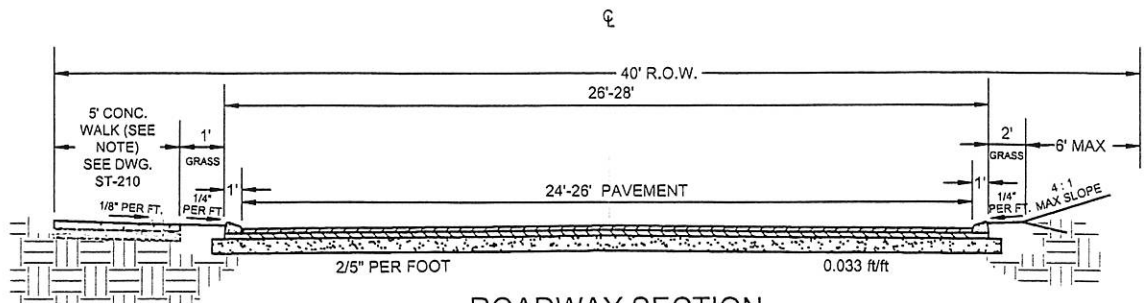
PAVEMENT COURSES

NOT TO SCALE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

DETAIL: ST-101B

LOW AND MEDIUM DENSITY
URBAN RESIDENTIAL ACCESS STREET



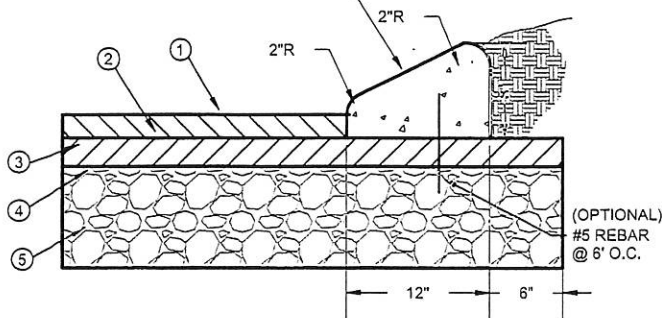
ROADWAY SECTION

NOT TO SCALE

NOTE:

1. UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260

EXTRUDED CURB
SEE STANDARD DRAWING ST-203



PAVEMENT COURSES

NOT TO SCALE

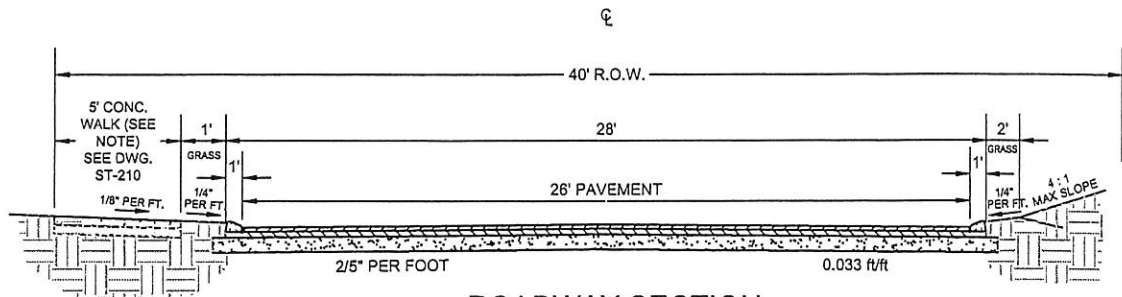
PAVING SCHEDULE

- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ PRIME COAT (RS-2)
- ⑤ 8" STONE (GRADING D PUG MILL MIX)

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

DETAIL: ST-102

HIGH DENSITY
URBAN RESIDENTIAL ACCESS LANE



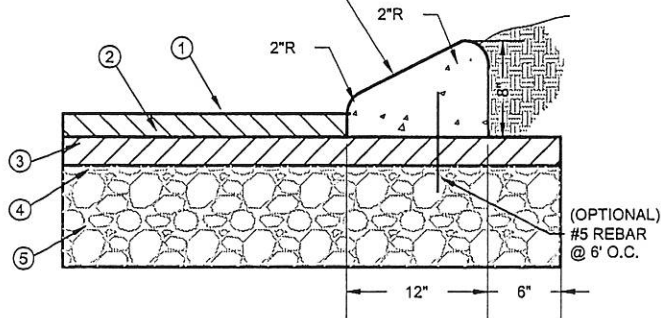
ROADWAY SECTION

NOT TO SCALE

NOTE:

1. UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260

EXTRUDED CURB
SEE STANDARD DRAWING ST-203

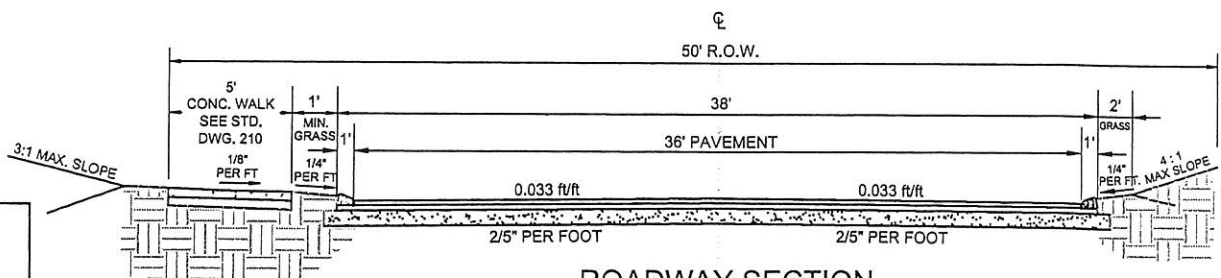


PAVEMENT COURSES

NOT TO SCALE

PAVING SCHEDULE

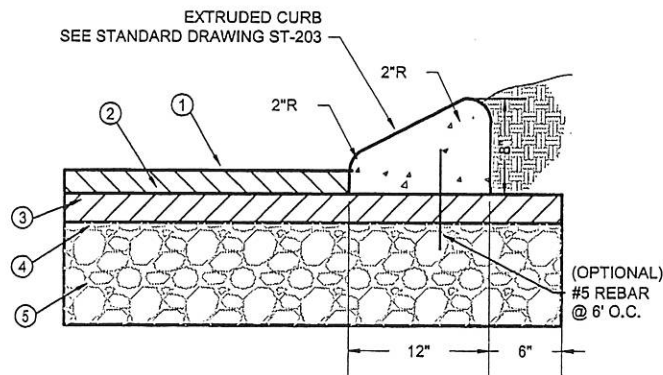
- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ PRIME COAT (RS-2)
- ⑤ 8" STONE (GRADING D PUG MILL MIX)



ROADWAY SECTION
NOT TO SCALE

NOTES:

- (A) SIDEWALK REQUIRED ONLY ON ONE SIDE OF STREET.
- (B) 4:1 MAX. SLOPE REQUIRED ON SIDE OF STREET WITHOUT SIDEWALK.
- (C) UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260



PAVEMENT COURSES
NOT TO SCALE

PAVING SCHEDULE

- ① 1-1/2\" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3\" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ PRIME COAT (RS-2)
- ⑤ 10\" STONE (GRADING D PUG MILL MIX)

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

HIGH DENSITY
URBAN ACCESS STREET

DETAIL: ST-105

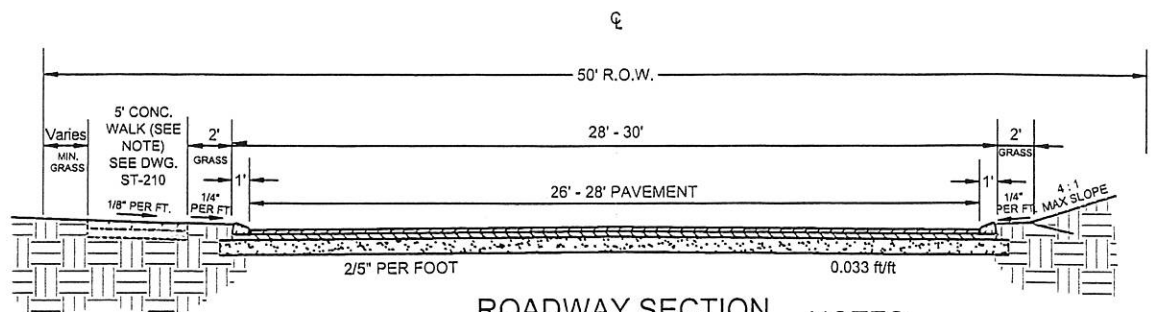
08-21-03
REVISED 05-23-13
REVISED 04-09-14

LOW AND MEDIUM DENSITY
URBAN RESIDENTIAL COLLECTOR STREET

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

DETAIL: ST-106

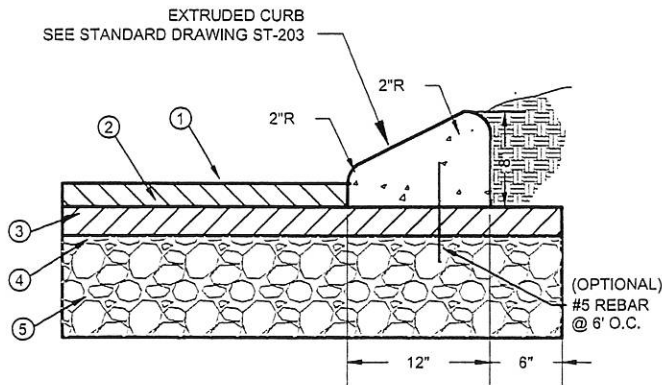
08-21-03
REVISED 05-23-13
REVISED 04-09-14



ROADWAY SECTION
NOT TO SCALE

NOTES:

- (A) 26' PAVEMENT REQUIRED FOR STREET WITH 2000 OR LESS ADT.
- (B) 28' PAVEMENT REQUIRED FOR STREET WITH 2000 OR MORE ADT.
- (C) SIDEWALK REQUIRED ONLY ON ONE SIDE OF STREET.
- (D) UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260



PAVEMENT COURSES
NOT TO SCALE

PAVING SCHEDULE

- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ PRIME COAT (RS-2)
- ⑤ 8" STONE (GRADING D PUG MILL MIX)

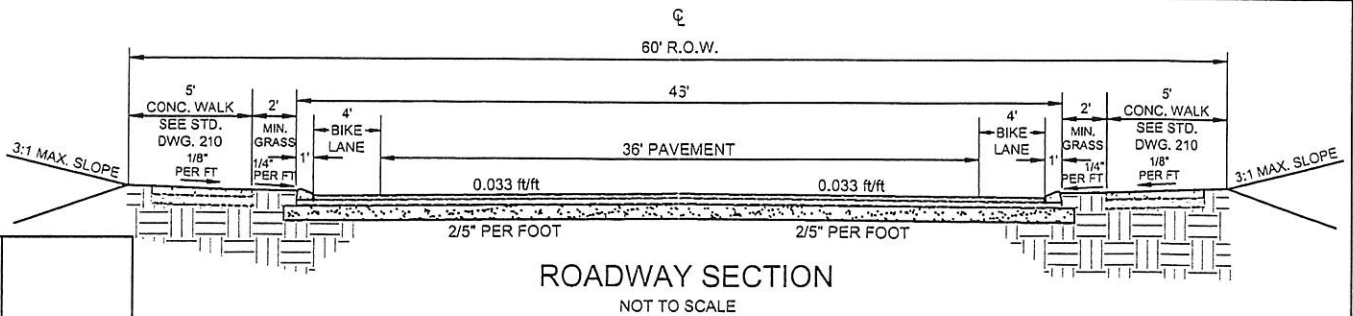


- (A) SIDEWALK REQUIRED ON BOTH SIDES OF STREET.
- (B) 38' PAVEMENT REQUIRED FOR STREET WITH 2000 OR LESS ADT
- (C) 40' PAVEMENT REQUIRED FOR STREET WITH 2000 OR MORE ADT
- (D) UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260

- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ PRIME COAT (RS-2)
- ⑤ 10" STONE (GRADING D PUG MILL MIX)

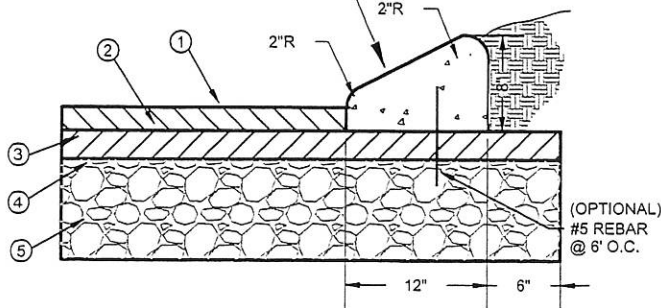


08-21-03
REVISED 05-23-13



ROADWAY SECTION
NOT TO SCALE

EXTRUDED CURB
SEE STANDARD DRAWING ST-203



PAVEMENT COURSES
NOT TO SCALE

NOTES:

- (A) SIDEWALK REQUIRED ON BOTH SIDES OF STREET.
- (B) UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260

PAVING SCHEDULE

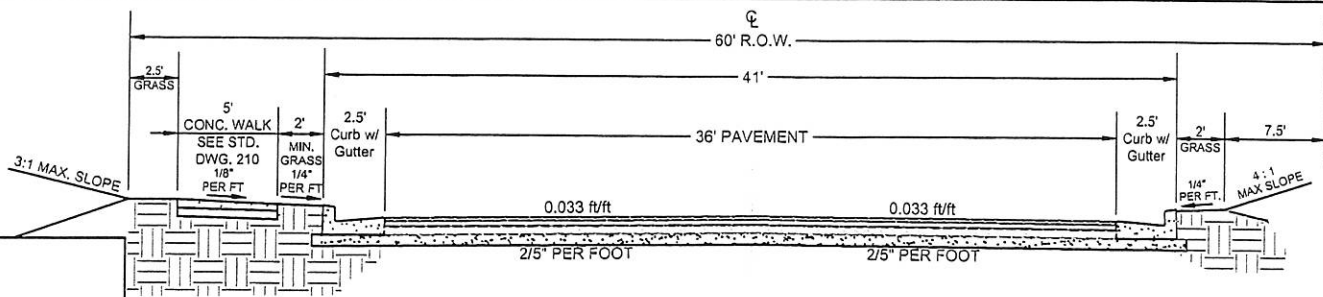
- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ PRIME COAT (RS-2)
- ⑤ 10" STONE (GRADING D PUG MILL MIX)

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

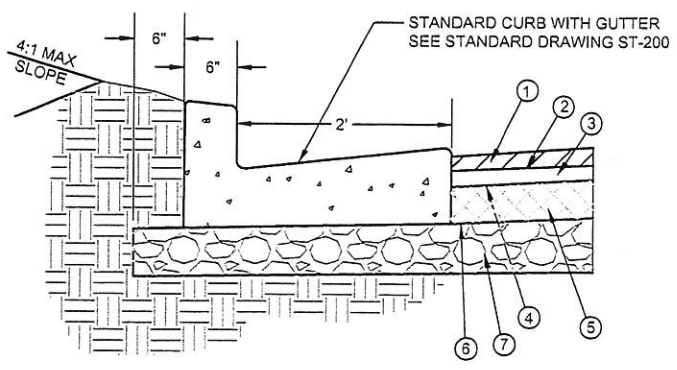
DETAIL: ST-109

HIGH DENSITY URBAN
COMMUNITY COLLECTOR STREET

08-21-03
REVISED 05-23-13



ROADWAY SECTION
NOT TO SCALE



PAVEMENT COURSES
NOT TO SCALE

NOTES:

- (A) SIDEWALK REQUIRED ONLY ON ONE SIDE OF STREET.
- (B) 4:1 MAX. SLOPE REQUIRED ON SIDE OF STREET WITHOUT SIDEWALK.
- (C) UNDERDRAINS SHALL BE PROVIDED ALONG THE ROADWAY PERIMETER WHERE OFF-ROAD SLOPES DIRECT DRAINAGE INTO THE ROADWAY SECTION. SEE ST-260

PAVING SCHEDULE

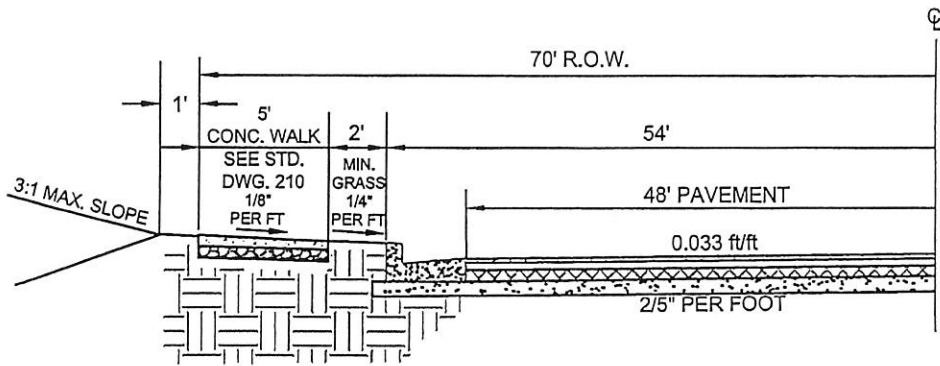
- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 3" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ TACK COAT (SS-1)
- ⑤ 4" ASPHALTIC CONCRETE BASE (307A)
- ⑥ PRIME COAT (RS-2)
- ⑦ 8" STONE (GRADING D PUG MILL MIX)

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

DETAIL: ST-111

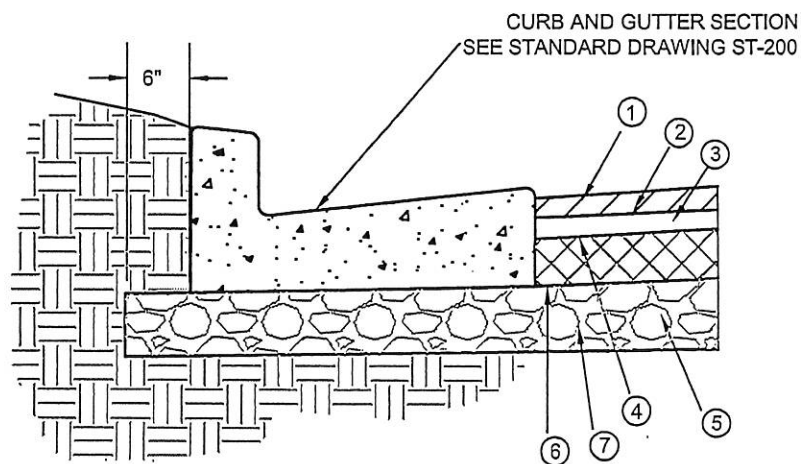
NON-RESIDENTIAL
ACCESS STREET

09-22-03
REVISED 05-23-13
REVISED 04-09-14



ROADWAY HALF SECTION

NOT TO SCALE



PAVEMENT COURSES

NOT TO SCALE

PAVING SCHEDULE

- ① 1-1/2" ASPHALTIC CONCRETE SURFACE (411E)
- ② TACK COAT (SS-1)
- ③ 2" ASPHALTIC CONCRETE BASE (B-MODIFIED)
- ④ TACK COAT (SS-1)
- ⑤ 4" ASPHALTIC CONCRETE BASE (307A)
- ⑥ PRIME COAT (RS-2)
- ⑦ 8" STONE (GRADING D PUG MILL MIX)

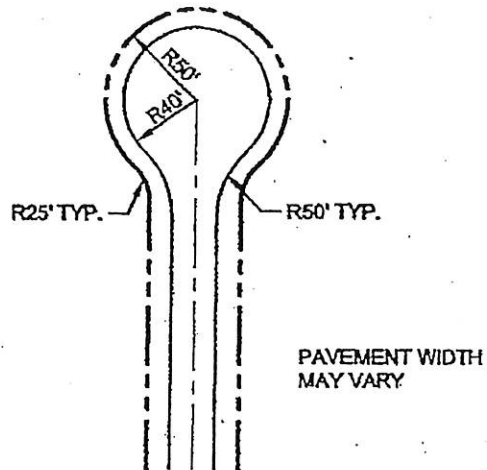
NOTES:

- (A) SIDEWALK REQUIRED ON BOTH SIDES OF STREET.
- (B) RIGHT-OF-WAY SHOWN IS MINIMUM REQUIRED.

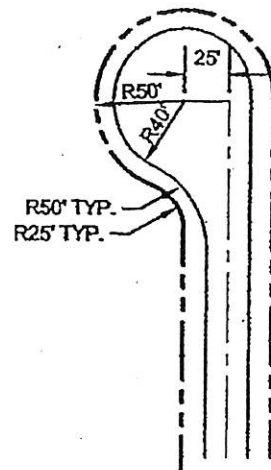
NON-RESIDENTIAL COMMUNITY COLLECTOR

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

DETAIL: ST-112



**STANDARD
CUL-DE-SAC
DETAIL**



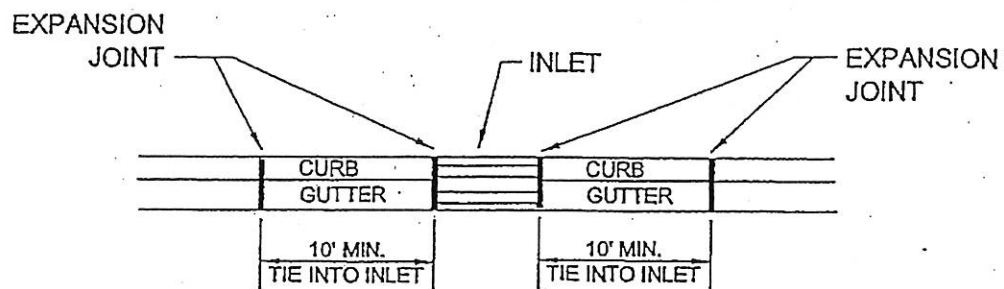
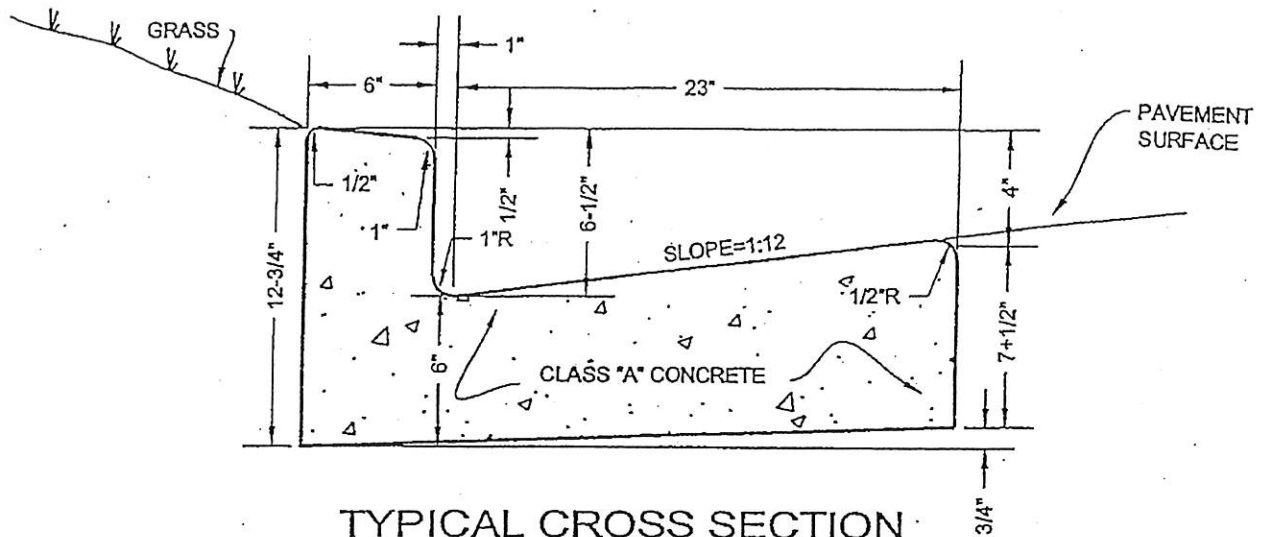
**OFFSET
CUL-DE-SAC
DETAIL**

FOR RIGHT-OF-WAY = 50'
FOR RIGHT-OF-WAY = 40'

CUL-DE-SAC DETAILS

**DRAWING NO. ST-121
SCALE: NONE**

**CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT**



GENERAL NOTES:

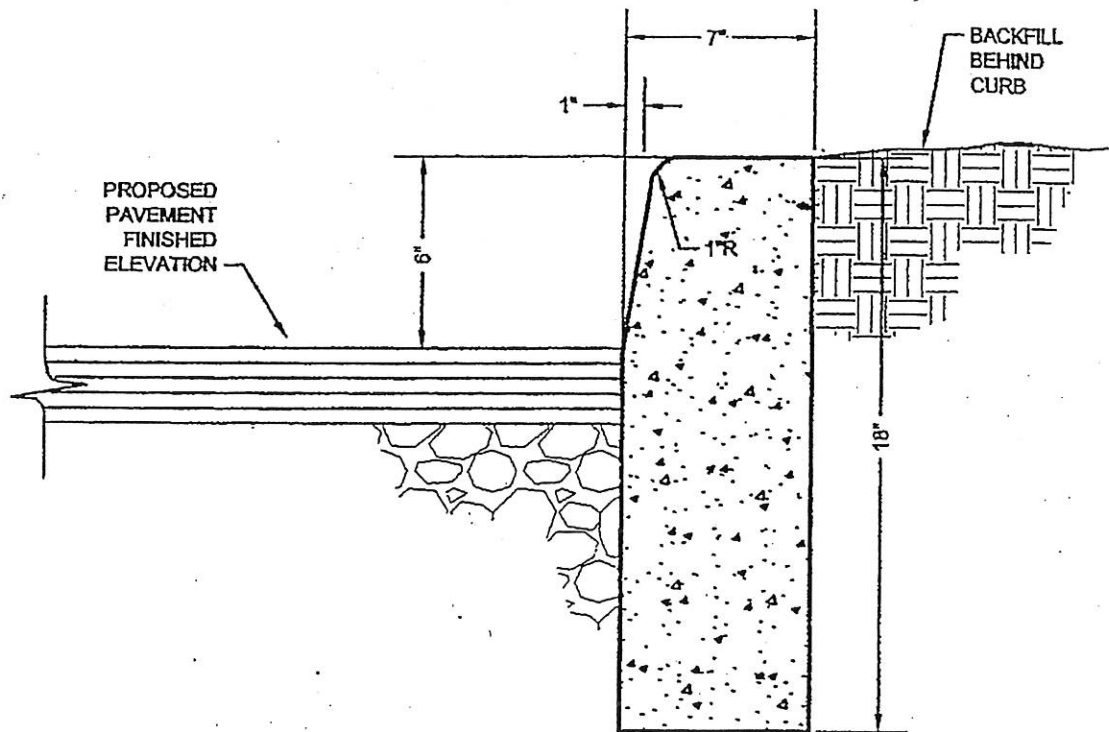
1. EXPANSION JOINTS TO BE SPACED A MAXIMUM OF 100 FEET APART OR AS DIRECTED BY THE ENGINEER.
2. EXPANSION JOINTS WILL ALSO BE REQUIRED AT TANGENT POINTS, RAMPS, AND INLETS.
3. CONTRACTION JOINTS ARE TO BE CUT INTO CURB AND GUTTER EVERY TEN (10) FEET TO A DEPTH OF D/4, WHERE D EQUALS THE THICKNESS OF THE SECTION. THE SPACING OF TEN FEET MAY BE REDUCED AT CLOSURES BUT NO SECTION OF CURB AND GUTTER SHALL BE LESS THAN SIX FEET.
4. THERE WILL BE A MINIMUM OF TEN (10) FEET TIE IN AT CURB INLETS ON EACH SIDE OF THE INLET. AN EXPANSION JOINT WILL BE USED ON EACH SIDE OF THE TIE IN.
5. COST OF JOINTS TO BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE CURB AND GUTTER.
6. FOR USE ON NON-RESIDENTIAL STREETS.

STANDARD CURB WITH GUTTER

DRAWING NO. ST-200

SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

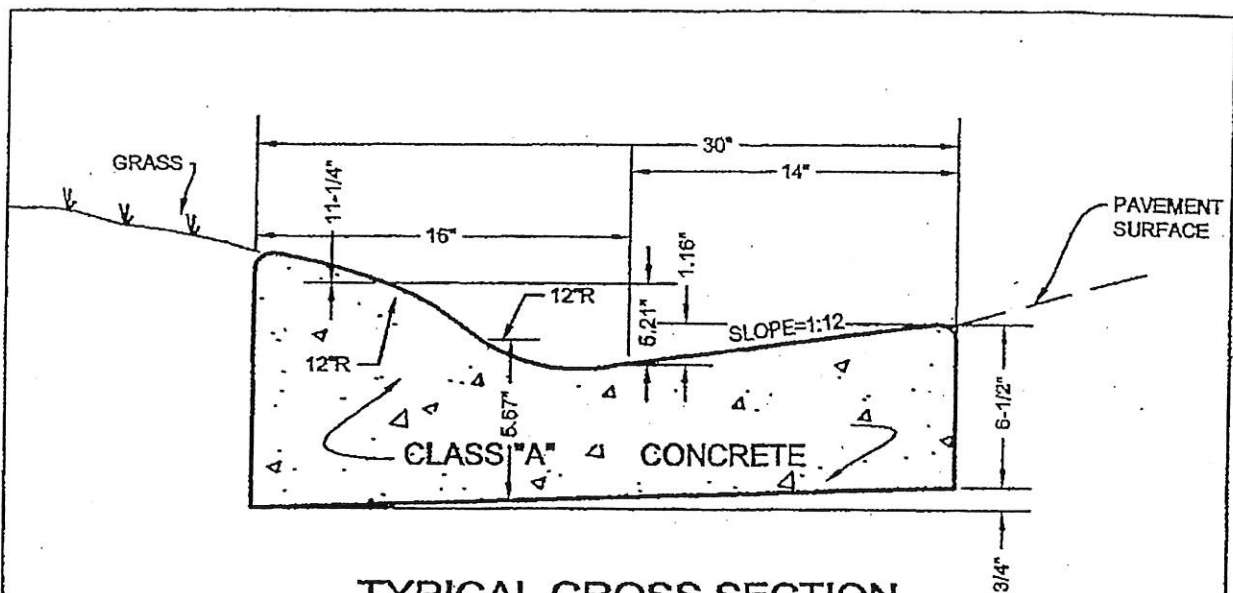


CONCRETE POST CURB

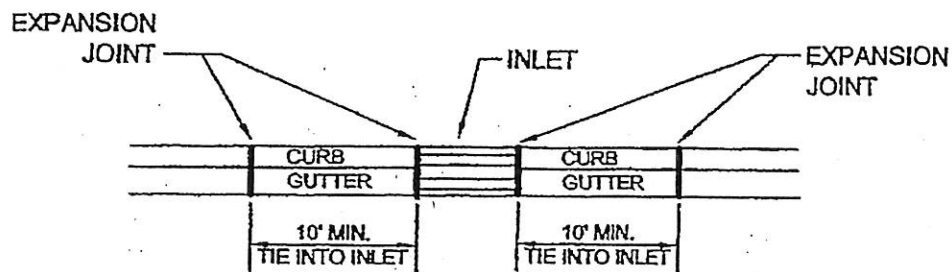
DRAWING NO.: ST-201

SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



TYPICAL CROSS SECTION



FRONT VIEW

GENERAL NOTES:

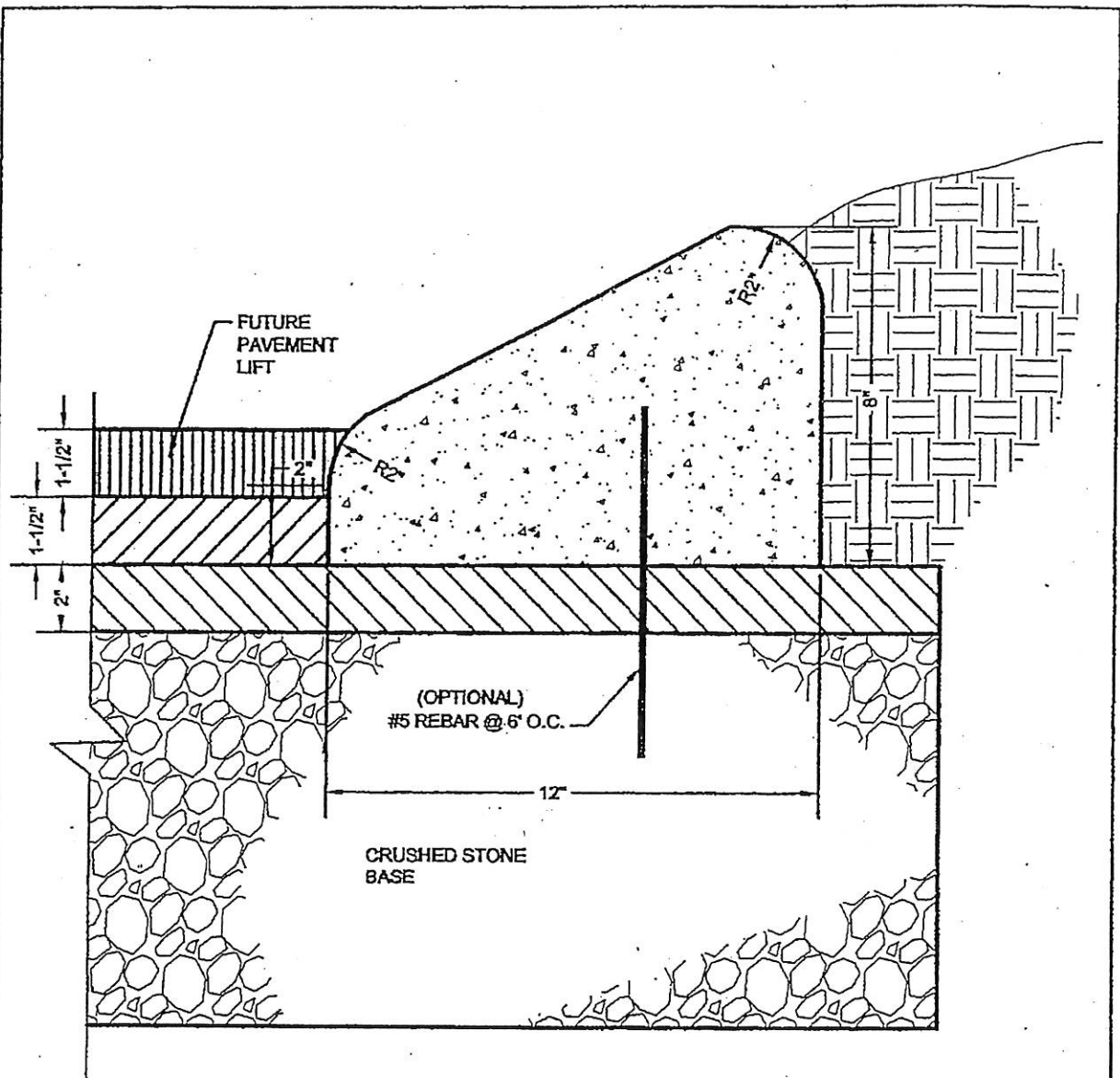
1. EXPANSION JOINTS TO BE SPACED A MAXIMUM OF 100 FEET APART OR AS DIRECTED BY THE ENGINEER.
2. EXPANSION JOINTS WILL ALSO BE REQUIRED AT TANGENT POINTS, RAMPS, AND INLETS.
3. CONTRACTION JOINTS ARE TO BE CUT INTO CURB AND GUTTER EVERY TEN (10) FEET TO A DEPTH OF D/4, WHERE D EQUALS THE THICKNESS OF THE SECTION. THE SPACING OF TEN FEET MAY BE REDUCED AT CLOSURES BUT NO SECTION OF CURB AND GUTTER SHALL BE LESS THAN SIX FEET.
4. THERE WILL BE A MINIMUM OF TEN (10) FEET TIE IN AT CURB INLETS ON EACH SIDE OF THE INLET. AN EXPANSION JOINT WILL BE USED ON EACH SIDE OF THE TIE IN.
5. COST OF JOINTS TO BE INCLUDED IN THE UNIT BID PRICE FOR CONCRETE CURB AND GUTTER.
6. MT. JULIET STANDARD PRIOR TO JULY 17, 2003.

MOUNTABLE CURB WITH GUTTER

DRAWING NO.: ST-202

SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



TYPICAL CROSS-SECTION

GENERAL NOTES:

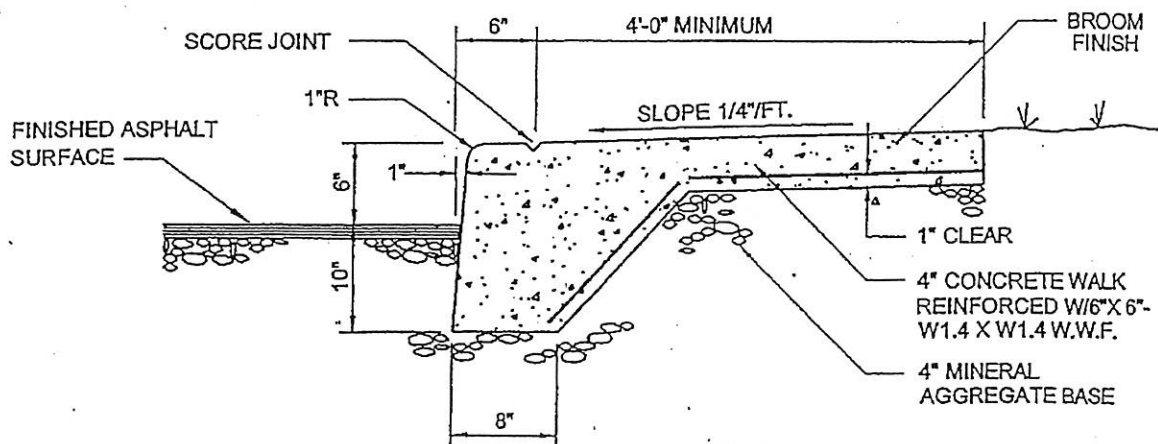
1. WHERE CONCRETE MEDIAN PAVEMENT IS POURED BEHIND EXTRUDED 8-INCH CONCRETE CURB, IT MAY BE POURED MONOLITHICALLY WITH THE CURB.
2. THE EXTRUDED 8-INCH CONCRETE CURB IS TO BE USED AS THE STANDARD FOR RESIDENTIAL STREETS AND ROADS.
3. WHERE CURB INLETS ARE REQUIRED, USE JOHN BOUCHARD & SONS CO. GRATE NOS. 3103 OR 3103-V, OR APPROVED & EQUAL.
4. MT. JULIET STANDARD FOR RESIDENTIAL STREETS, ADOPTED 07/17/2003.
5. RESIDENTIAL DRIVEWAYS: CURB TO BE CUT TO CONFORM TO STANDARD DRAWING NO. ST-313.

HIGH PROFILE EXTRUDED CURB

DRAWING NO. ST-203

SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

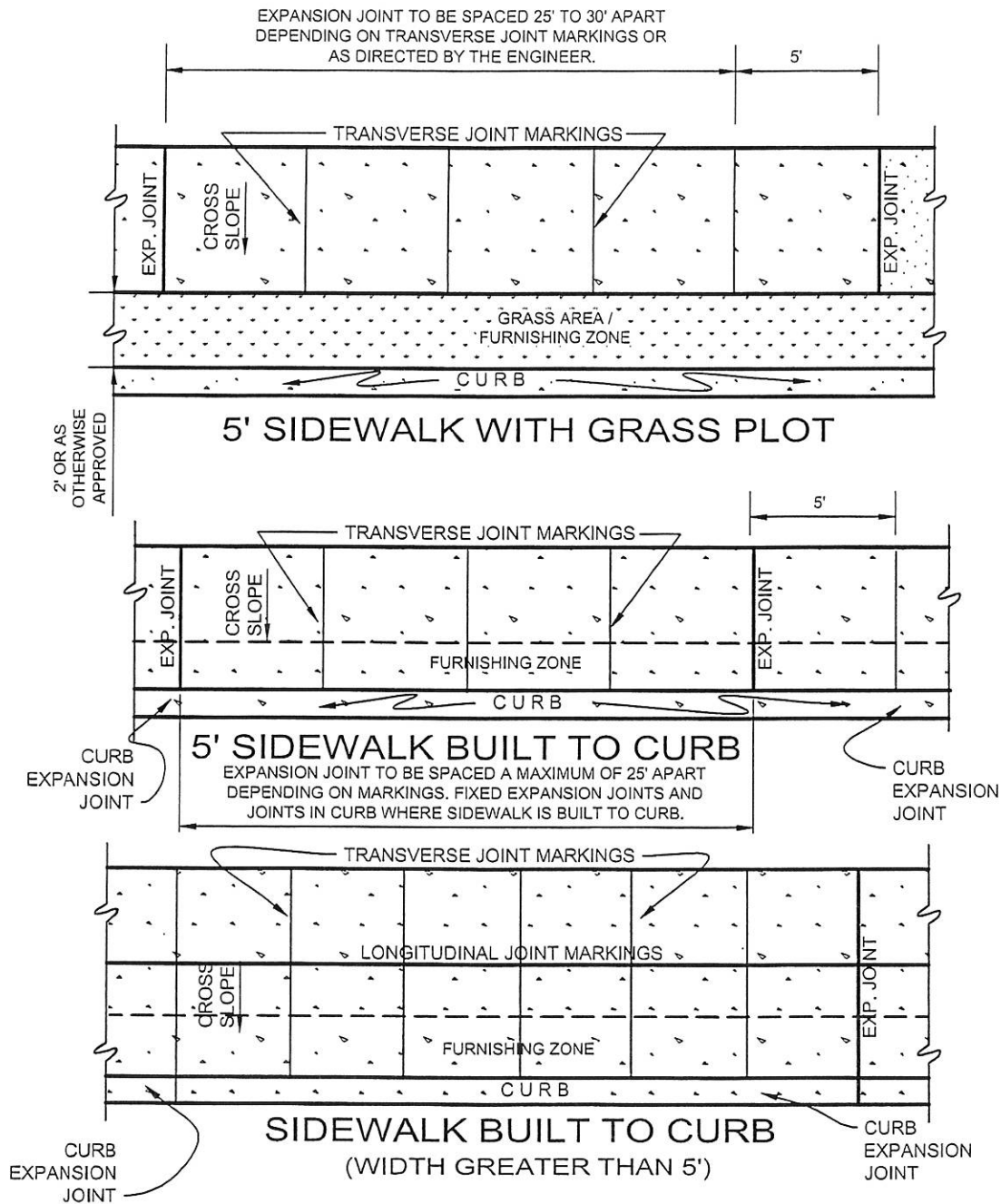


PROVIDE CONTROL JOINTS PER DETAIL ST-213 SPACED EVERY 5 FT. AND EXPANSION JOINTS PER DETAIL ST-213 EVERY 20 FT.

CONCRETE SIDEWALK
AND HAUNCHED CURB

DETAIL NO.: ST-204
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



GENERAL NOTES:

1. SIDEWALKS SHALL BE A MINIMUM OF 4 INCHES IN THICKNESS AND MAINTAIN A MINIMUM OF 4 FEET CLEARANCE THROUGH THE PATH OF TRAVEL.
2. MAXIMUM CROSS SLOPE FOR SIDEWALKS SHALL NOT EXCEED 1:48 (VERTICAL:HORIZONTAL).
3. SIDEWALK SHALL BE CONSTRUCTED OF WHITE CONCRETE PER DEPARTMENT OF PUBLIC WORKS TECHNICAL SPECIFICATIONS.
4. WHERE A GRASS AREA IS NOT PROVIDED, A MAXIMUM OF 2 FEET FURNISHING ZONE IS REQUIRED, MAINTAINING A MINIMUM OF 4 FEET CLEARANCE THROUGH THE PATH OF TRAVEL.

STANDARD CONCRETE SIDEWALK

DRAWING NO.: ST-210

SCALE: NONE

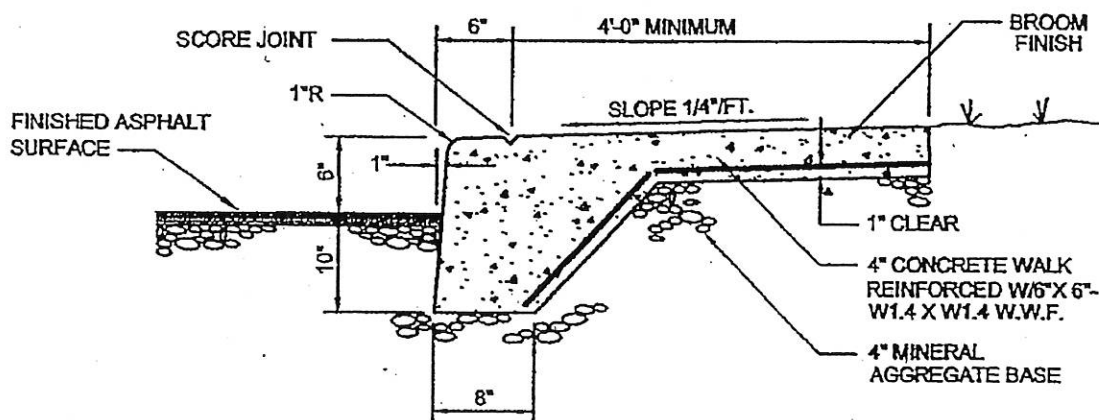
CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

REVISED 05-23-13

NOTES:

1. CURB RAMPS SHALL BE PROVIDED TO ALLOW ALL USERS TO MAKE THE TRANSITION IN GRADE FROM THE STREET TO THE SIDEWALK.
2. CURB RAMPS SHALL BE CONSTRUCTED TO THE DIMENSIONS AND FINISHED ELEVATIONS AS SPECIFIED IN THE PLANS AND/OR CONTRACT DOCUMENTS AND SHALL ALSO CONFORM TO THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT. SURFACE TEXTURE OF THE CURB RAMP SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. THE SURFACE SHALL BE COARSE-BROOMED FINISH TRANSVERSE TO THE SLOPE OF THE RAMP. CARE SHALL BE TAKEN TO ASSURE A UNIFORM GRADE ON THE CURB RAMP. LONGITUDINAL AND TRANSVERSE JOINT MARKINGS SHALL NOT BE ALLOWED ON THE LANDINGS OR RAMPS.
3. DRAINAGE AND UTILITY STRUCTURES SHALL NOT BE PLACED IN CURB RAMP OR LANDING.
4. THE GUTTER LINE PROFILE OF THE STREET SHALL BE MAINTAINED THROUGH THE AREA OF THE CURB RAMP.
5. THE FURNISHING ZONE BUFFERS PEDESTRIANS FROM THE ADJACENT ROADWAY AND IS ALSO AN AREA WHERE ELEMENTS SUCH AS MAIL BOXES, STREET TREES, SIGNAL POLES, UTILITY POLES, STREET LIGHTS, CONTROLLER BOXES, HYDRANTS, SIGNS, PARKING METERS, DRIVEWAY APRONS, GRATES, HATCH COVERS, AND STREET FURNITURE ARE PROPERLY LOCATED.
6. A DETECTABLE WARNING DEVICE SHALL BE INSTALLED WITHIN CURB RAMPS. SEE ST-303 FOR DETAILS.

STANDARD CURB RAMP NOTES
DRAWING NO.: ST-211
SCALE: NONE
CITY OF MT. JULIET PUBLIC WORKS DEPARTMENT

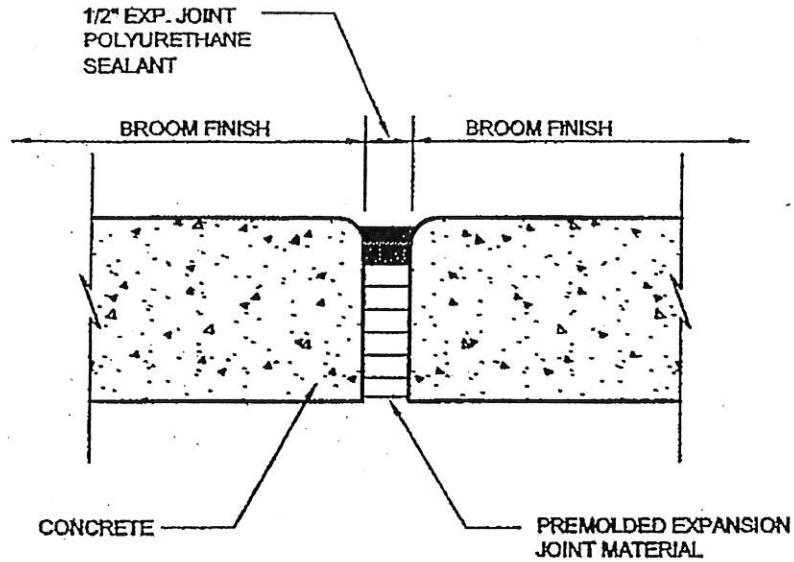


PROVIDE CONTROL JOINTS PER DETAIL ST-213 SPACED EVERY 5 FT. AND
EXPANSION JOINTS PER DETAIL ST-213 EVERY 20 FT.

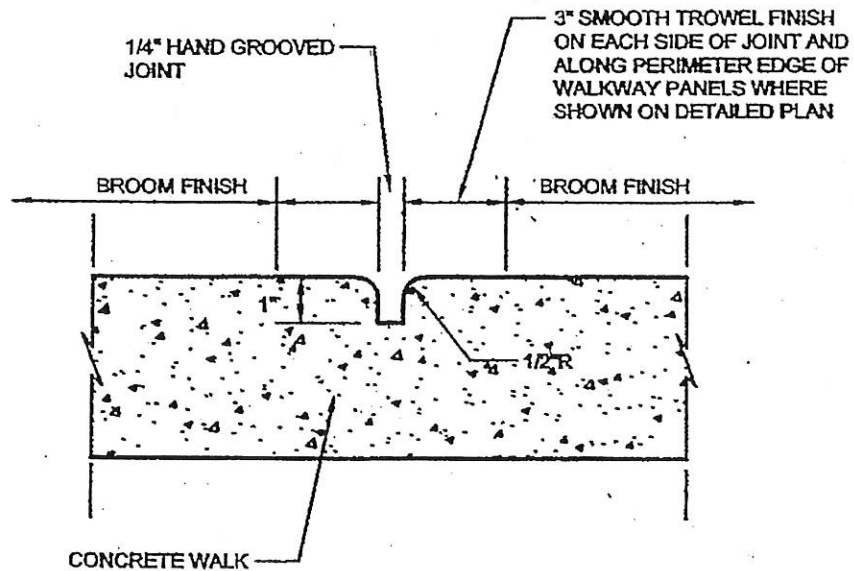
HAUNCHED CURB AND
CONCRETE SIDEWALK (RES.)

DETAIL NO.: ST-212
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



EXPANSION JOINT

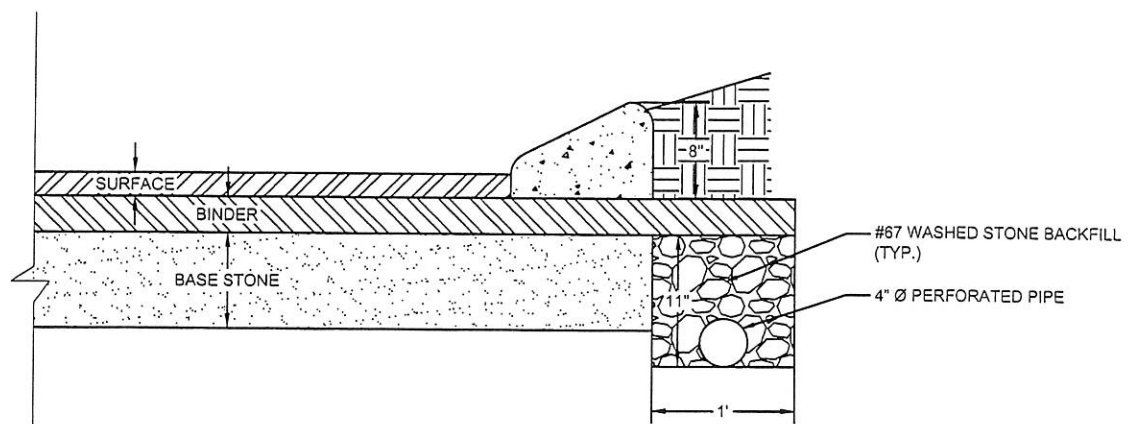


CONTROL JOINT

EXPANSION JOINT
CONTROL JOINT

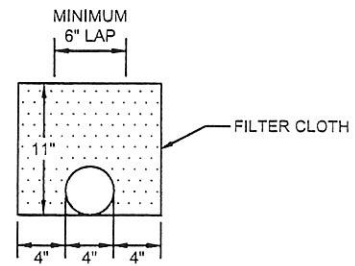
DETAIL NO.: ST-213
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



NOTE:

1. 4" UNDERDRAIN PIPE TO DISCHARGE INTO DOWNSTREAM CURB INLET.

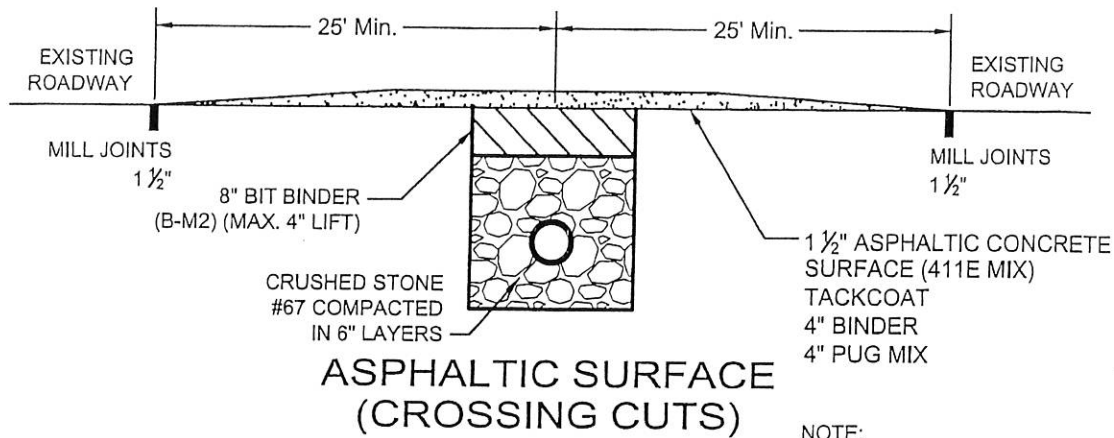


**UNDERDRAIN DETAIL
(NOT TO SCALE)**

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

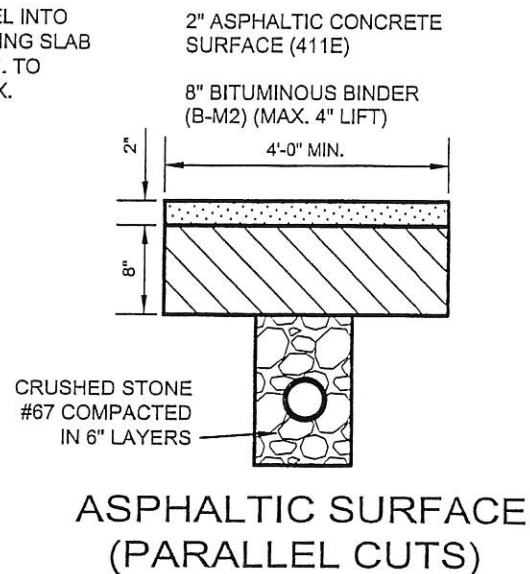
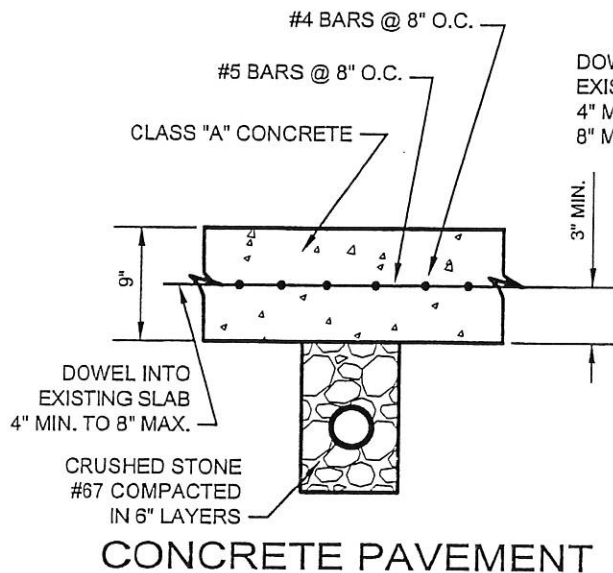
DETAIL: ST-260

06-11-13
REVISED 09-17-13
REVISED 04-09-14



NOTE:

1. MATCH EXISTING REBAR WITH MINIMUM SHOWN.



GENERAL NOTES:

1. ALL WORK SHALL BE FIELD CHECKED AND APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ITS BEGINNING AND AFTER COMPLETION THEREOF.
2. INSPECTION PERSONNEL OF THE DEPARTMENT SHALL BE NOTIFIED AT LEAST TWO (2) DAYS PRIOR TO COMMENCING WORK.
3. THE WORK PERFORMED SHALL BE FREE FROM WORKMANSHIP DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION.
4. EXISTING PAVEMENTS, BASES, CURBS & GUTTERS AND SIDEWALKS SHALL BE CUT AND BROUGHT TO A NEAT LINE BY USE OF AN AIR HAMMER, SAW OR OTHER SUITABLE EQUIPMENT. EXPANSION JOINTS REMOVED SHALL BE REPLACED.
5. THE MINIMUM WIDTH TO BE TRIMMED ON EACH SIDE OF THE TRENCH LINE, AS SEEN IN THE SECTION, MAY BE WAIVED OR AMENDED UPON APPROVAL OF THE INSPECTOR; HOWEVER, A MINIMUM WIDTH OF REPLACEMENT SHALL BE 4'-0" TO ALLOW FOR PROPER COMPACTION.

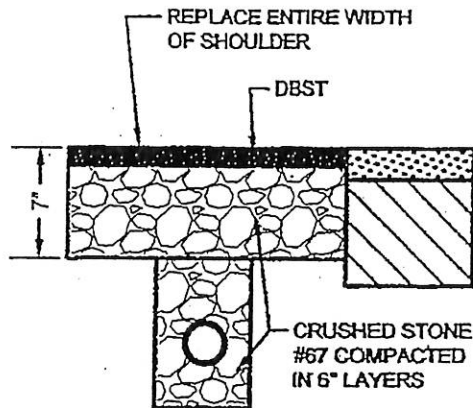
6. IF PERMANENT PAVEMENT REPAIRS CANNOT BE MADE WITHIN THREE (3) DAYS, THEN TEMPORARY REPLACEMENT SHALL BE MADE WITH 2" COLD MIX OR HOT BITUMINOUS SEAL COAT OVER COMPACTED CRUSHED STONE.
7. ALL EXCAVATIONS MADE WITHIN PUBLIC RIGHT-OF-WAY REQUIRE EXCAVATIONS AND STREET CLOSURE PERMITS FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING WORK.
8. FLOWABLE FILL SHALL MEET THE REQUIREMENTS IN TENNESSEE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 204.
9. PROFILE MILL AND OVERLAY ROADWAY 25' EACH WAY FROM CENTER OF CUT UNLESS OTHERWISE NOTED.

TRENCH REPAIR WITHIN ROADWAY

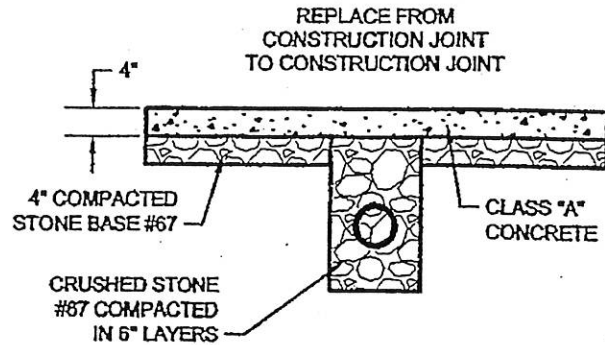
DRAWING NO.: ST-270
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

REVISED 11-19-13
REVISED 12-16-13
REVISED 04-09-14
REVISED 08-14-14



**SHOULDER
REPLACEMENT**



**SIDEWALK
REPLACEMENT**

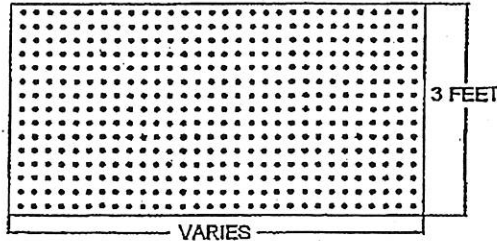
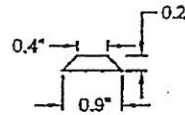
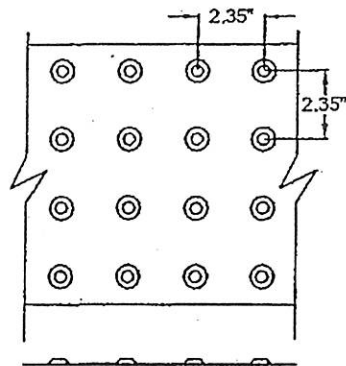
GENERAL NOTES:

1. ALL WORK SHALL BE FIELD CHECKED AND APPROVED BY THE PUBLIC WORKS DEPARTMENT PRIOR TO ITS BEGINNING AND AFTER COMPLETION THEREOF.
2. INSPECTION PERSONNEL OF THE DEPARTMENT SHALL BE NOTIFIED AT LEAST TWO (2) DAYS PRIOR TO COMMENCING WORK.
3. THE WORK PERFORMED SHALL BE FREE FROM WORKMANSHIP DEFECTS FOR A PERIOD OF ONE (1) YEAR AFTER COMPLETION.
4. EXISTING PAVEMENTS, BASES, CURBS & GUTTERS, AND SIDEWALKS SHALL BE CUT AND BROUGHT TO A NEAT LINE BY USE OF AN AIR HAMMER, SAW, OR OTHER SUITABLE EQUIPMENT. EXPANSION JOINTS REMOVED SHALL BE REPLACED.
5. THE MINIMUM WIDTH TO BE TRIMMED ON EACH SIDE OF THE TRENCH LINE AS SEEN IN THE SECTION MAY BE WAIVED OR AMENDED UPON APPROVAL OF THE INSPECTOR; HOWEVER, A MINIMUM WIDTH OF REPLACEMENT SHALL BE 4'-0" TO ALLOW FOR PROPER COMPACTION.
6. IF PERMANENT PAVEMENT REPAIRS CANNOT BE MADE WITHIN THREE (3) DAYS, THEN TEMPORARY REPLACEMENT SHALL BE MADE WITH 2" COLD MIX OR HOT BITUMINOUS SEAL COAT OVER COMPACTED CRUSHED STONE.
7. ALL EXCAVATIONS MADE WITHIN PUBLIC RIGHT-OF-WAY REQUIRE EXCAVATIONS AND STREET CLOSURE PERMITS FROM THE PUBLIC WORKS DEPARTMENT PRIOR TO COMMENCING WORK.

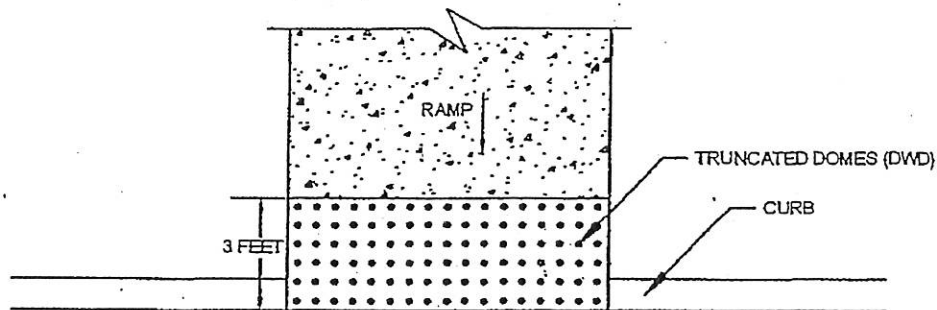
**TRENCH REPAIR
OUTSIDE ROADWAY**

DETAIL NO.: ST-271
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



DETAILS



PLAN

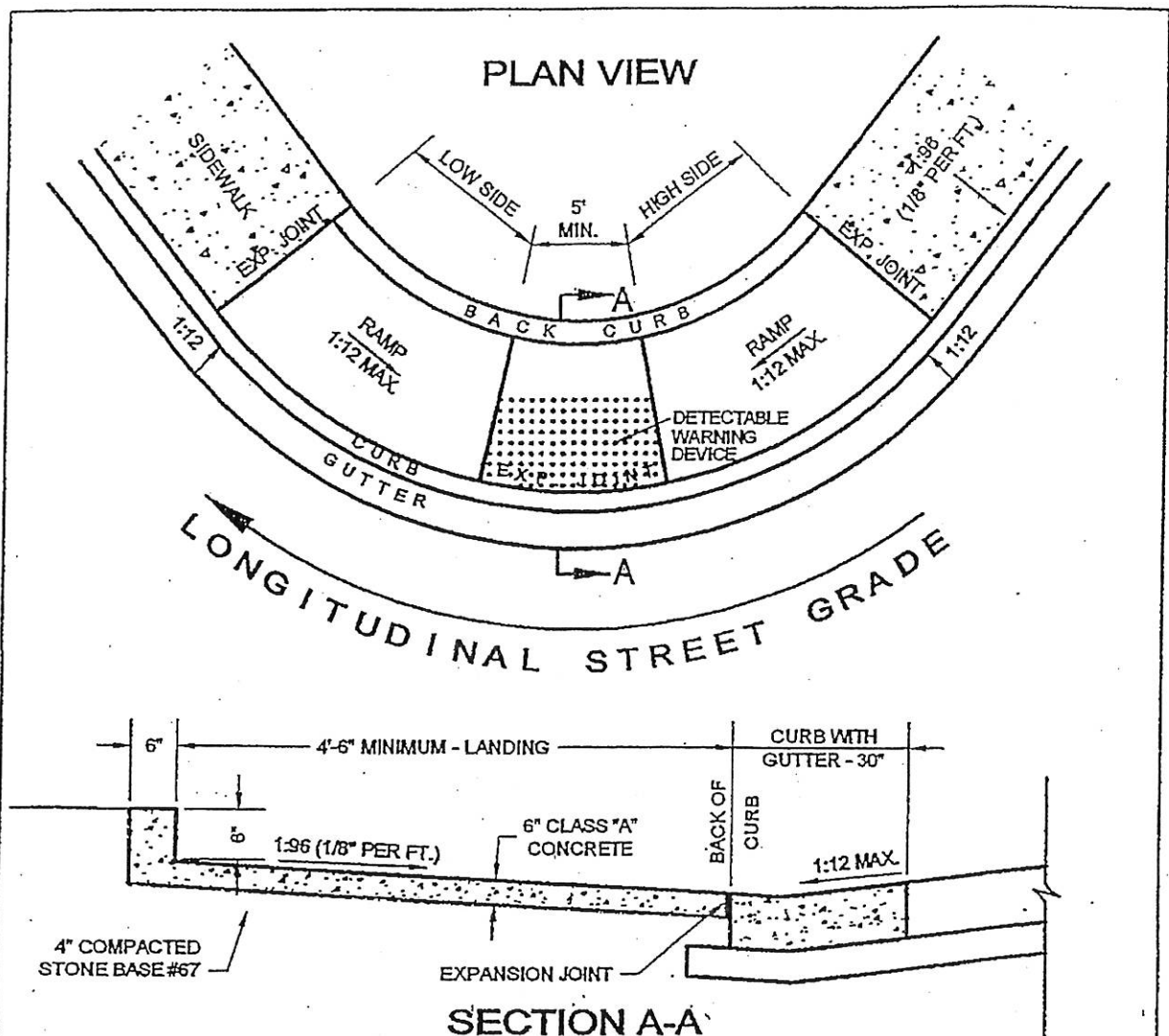
1. DETECTABLE WARNINGS SHALL BE OF MANUFACTURES SPECIFICATIONS AND MEET ADA REQUIREMENTS.
2. WIDTH OF DETECTABLE WARNING AREA SHALL BE A MINIMUM OF 4 FEET AND VARY WITH WIDTH OF RAMP.
3. LENGTH OF DETECTABLE WARNING AREA SHALL BE 2 FEET REGARDLESS OF SECTION WIDTH.
4. DETECTABLE WARNING DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.
5. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF WALKING SERVICE.
6. DETECTABLE WARNINGS USED ON INTERIOR SURFACES SHALL DIFFER FROM ADJOINING WALKING SURFACES IN RESILIENCY OR SOUND-ON-CANE CONTACT.
7. THE MATERIAL USED TO PROVIDE CONTRAST SHOULD CONTRAST BY AT LEAST 70 %. CONTRAST IN PERCENT IS DETERMINED BY:

$$\text{CONTRAST} = \frac{B1 - B2}{B2} \times 100$$
 WHERE B1 = LIGHT REFLECTANCE VALUE (LRV) OF THE LIGHTER AREA AND B2 = LIGHT REFLECTANCE VALUE (LRV) OF THE DARKER AREA. (NOTE THAT IN ANY APPLICATION BOTH WHITE AND BLACK ARE NEVER ABSOLUTE, THUS, B1 NEVER EQUALS 100 AND B2 IS ALWAYS GREATER THAN 0.

DETECTABLE WARNING DEVICE TRUNCATED DOMES

DETAIL ST 303
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT



GENERAL NOTES:

1. LANDING SHALL BE FLUSH WITH THE GUTTER OR EDGE OF PAVEMENT.
2. CROSS-SLOPE OF LANDING AND OF SIDEWALK SHALL NOT EXCEED 1:48 (VERTICAL:HORIZONTAL).
3. SURFACE TEXTURE OF THE CURB RAMP SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. THE SURFACE SHALL BE COARSE-BROOMED FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. BACK CURB HEIGHT ALONG RAMPS SHALL TRANSITION FROM ZERO (0) INCHES AT EXPANSION JOINTS TO SIX (6) INCHES AT LANDING AND SHALL BE A CONSTANT HEIGHT OF SIX (6) INCHES THROUGH LANDING. CROSS-SLOPE (BACK TO FRONT) OF TOP OF BACK CURB SHALL BE THE SAME AS SIDEWALK CROSS-SLOPE.
5. HIGH SIDE AND LOW SIDE RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12 (VERTICAL:HORIZONTAL) AND SHALL NOT BE REQUIRED TO EXCEED EIGHT (8) FEET (96 INCHES) IN LENGTH.
6. SEE DRAWING NO. ST-303 FOR DETECTABLE WARNING DEVICE DETAILS.

PARALLEL CURB RAMP

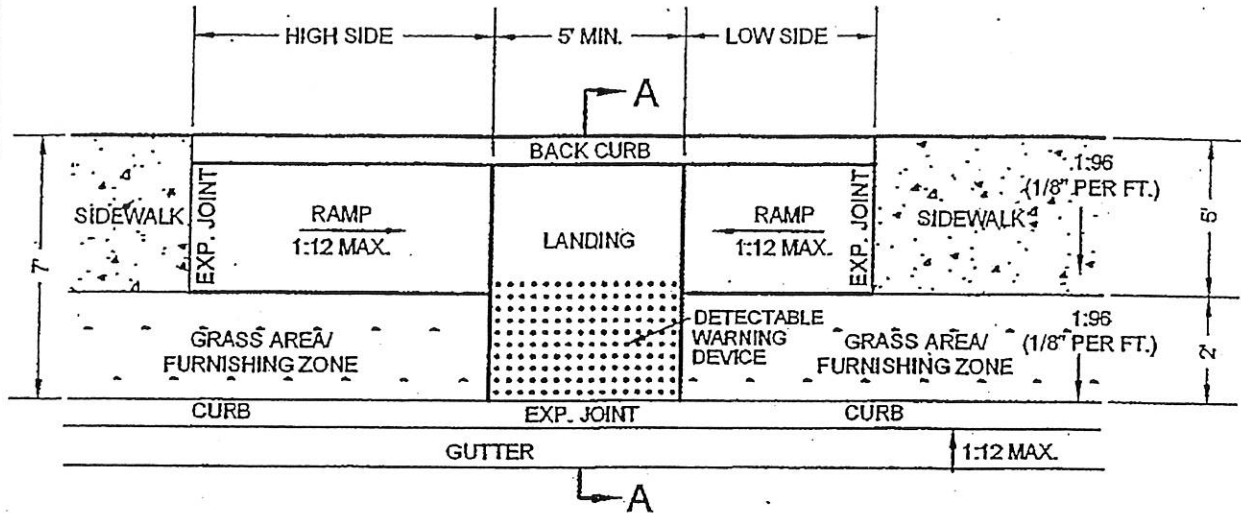
DRAWING NO. ST-304

SCALE: NONE

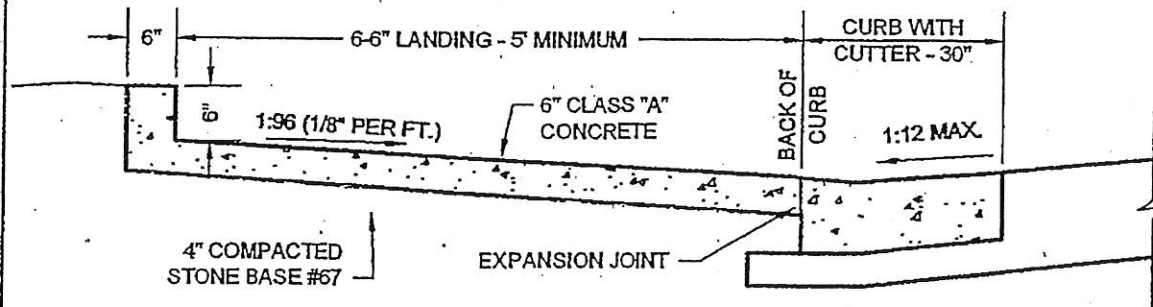
CITY OF MT. JULIET

PUBLIC WORKS DEPARTMENT

PLAN VIEW



LONGITUDINAL STREET GRADE



SECTION A-A

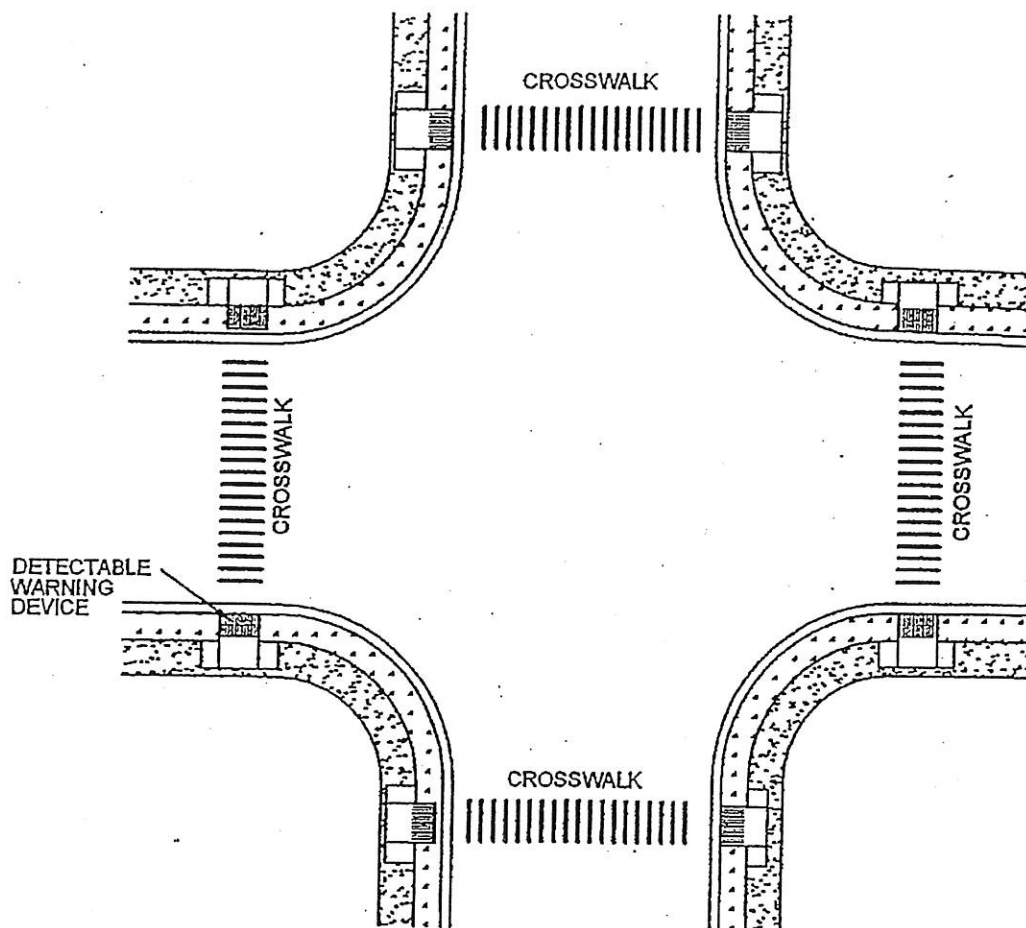
GENERAL NOTES:

1. LANDING SHALL BE FLUSH WITH THE GUTTER OR EDGE OF PAVEMENT.
2. CROSS-SLOPE OF LANDING AND OF SIDEWALK SHALL NOT EXCEED 1:48 (VERTICAL:HORIZONTAL).
3. SURFACE TEXTURE OF THE CURB RAMP SHALL BE STABLE, FIRM, AND SLIP-RESISTANT. THE SURFACE SHALL BE COARSE-BROOMED FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. BACK CURB HEIGHT ALONG RAMPS SHALL TRANSITION FROM 0 INCHES AT EXPANSION JOINTS TO 6 INCHES AT LANDING AND SHALL BE A CONSTANT HEIGHT OF 6 INCHES THROUGH LANDING. CROSS-SLOPE (BACK TO FRONT) OF TOP OF BACK CURB SHALL BE THE SAME AS SIDEWALK CROSS-SLOPE.
5. HIGH SIDE AND LOW SIDE RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12 (VERTICAL:HORIZONTAL) AND SHALL NOT BE REQUIRED TO EXCEED 8 FEET (96 INCHES) IN LENGTH.
6. SEE DRAWING NO. ST-303 FOR DETECTABLE WARNING DEVICE DETAILS.

PARALLEL CURB RAMP
WITH A DROP LANDING
2' GRASS STRIP

DETAIL: ST-305
SCALE: NONE

CITY OF MT. JULIET
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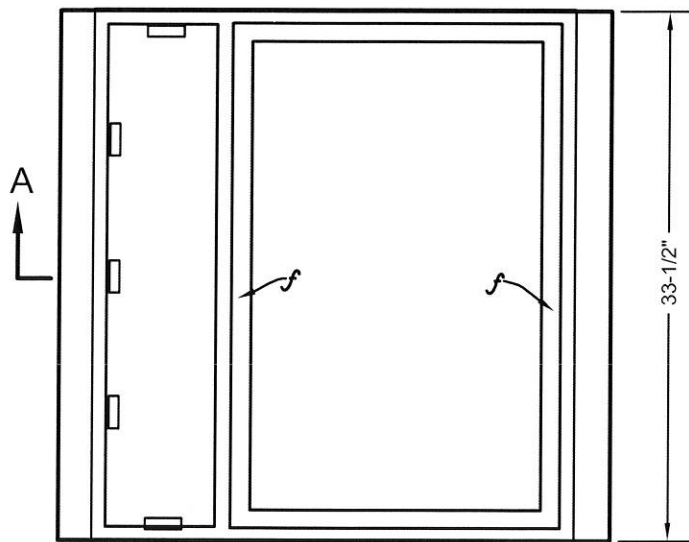
GENERAL NOTES:

1. SEE CURB RAMP STANDARD DRAWINGS FOR CONSTRUCTION DETAILS.
2. CURB RAMPS AT MARKED CROSSINGS SHALL BE WHOLLY CONTAINED WITHIN THE MARKINGS.
3. ALL MARKINGS TO CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. SEE DRAWING NO. ST-303 FOR DETECTABLE WARNING DEVICE DETAILS.

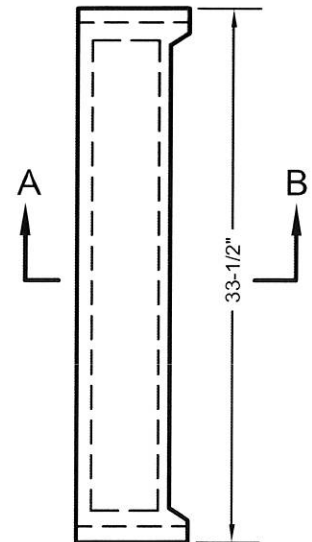
CURB RAMPS AT MARKED CROSSINGS

DETAIL NO.: ST-306
SCALE: NONE

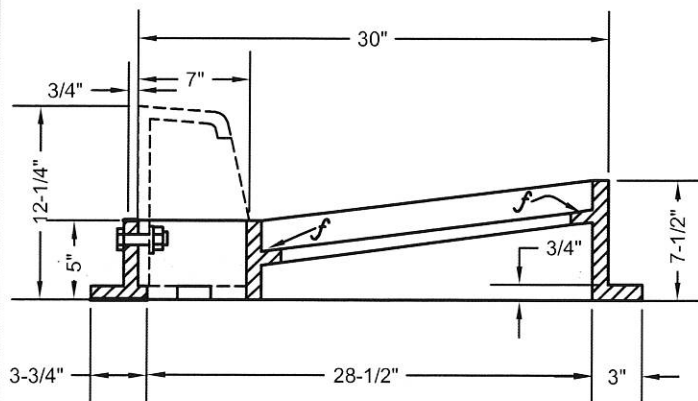
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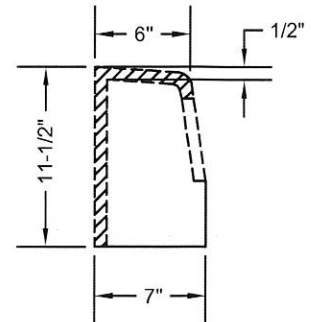
TOP VIEW



TOP VIEW



SECTION A-A



SECTION B-B

NOTES:

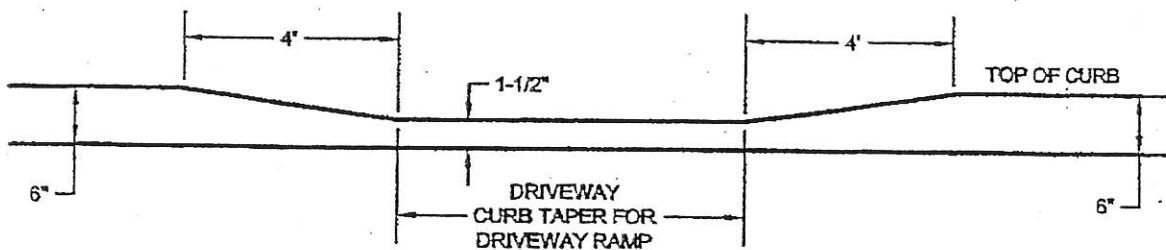
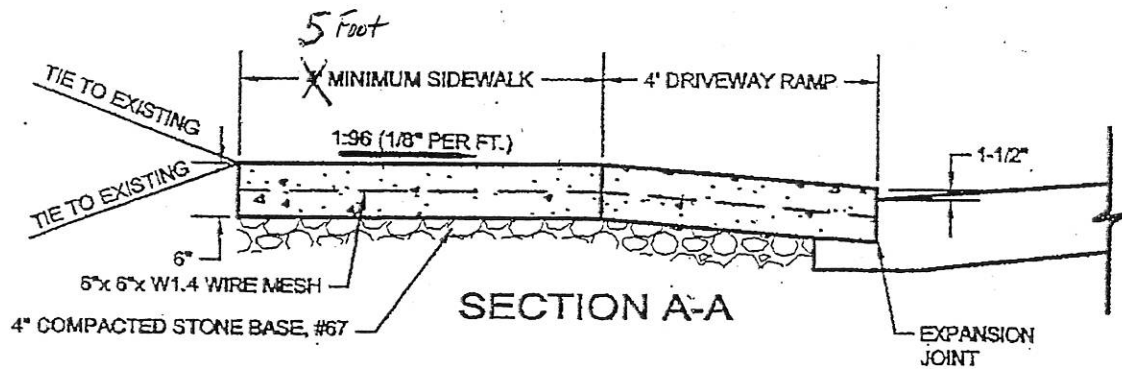
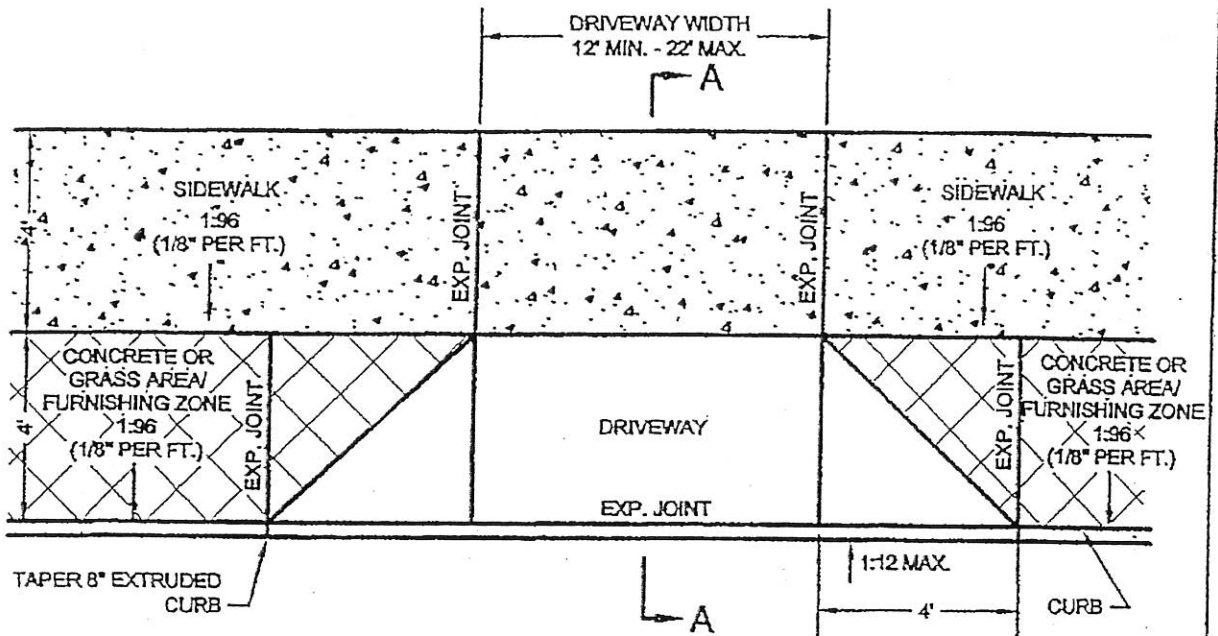
1. CONTACT SURFACES OF FRAME MARKED f ARE TO BE GROUND.
2. FRAME TO BE SIZED FOR MOUNTING EITHER VANE OR SUMP TYPE GRATE.
3. CASTINGS TO BE CLEANED AND PAINTED WITH BITUMINOUS COATING.

FRAME AND GRATE FOR
VERTICAL CURB & GUTTER

DETAIL NO.: ST-307
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

PLAN VIEW



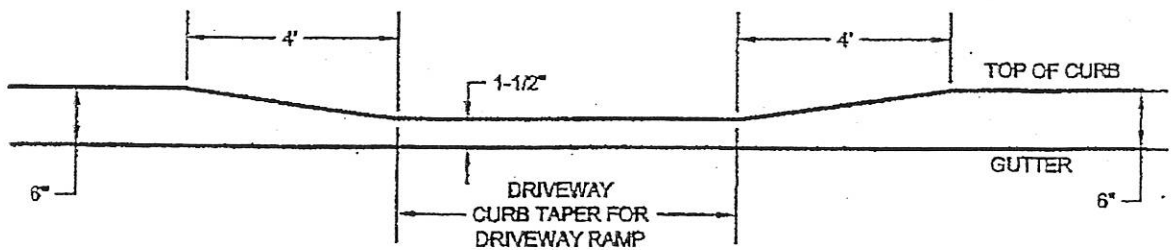
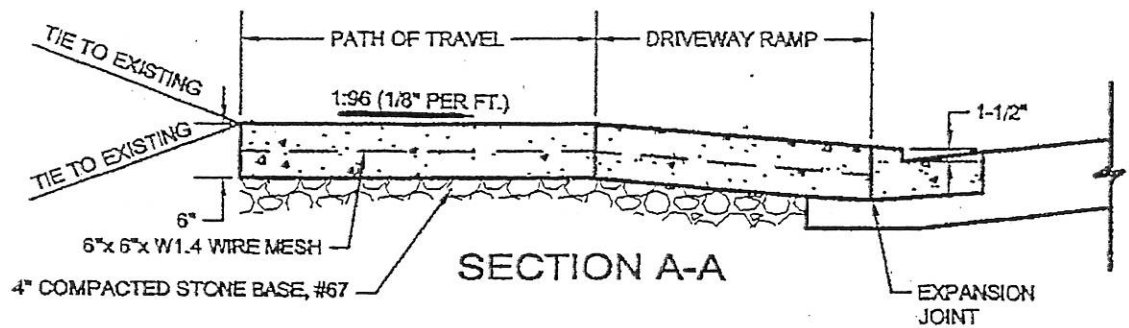
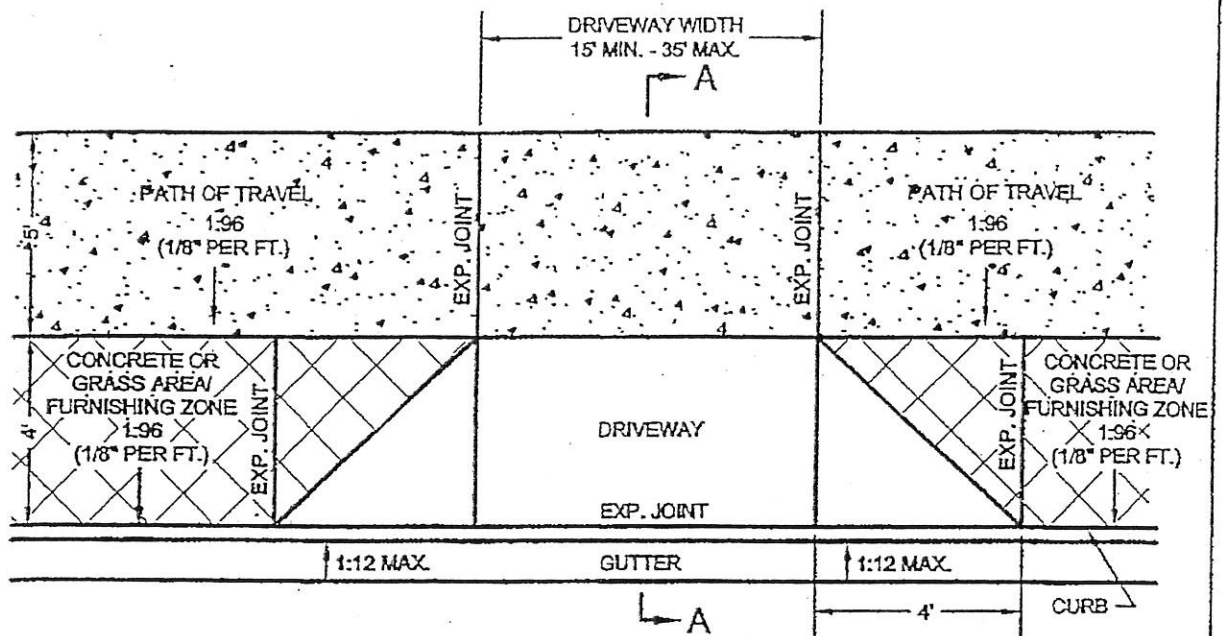
NOTE: CROSS-SLOPE OF SIDEWALK SHALL NOT EXCEED 1:48 (VERTICAL:HORIZONTAL).

**RESIDENTIAL CONCRETE
DRIVEWAY RAMP**

DETAIL NO.: ST-313
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT

PLAN VIEW



NOTE: CROSS-SLOPE OF SIDEWALK SHALL NOT EXCEED 1:48 (VERTICAL:HORIZONTAL).

COMMERCIAL CONCRETE
DRIVEWAY RAMP

DETAIL NO.: ST-314
SCALE: NONE

CITY OF MT. JULIET
PUBLIC WORKS DEPARTMENT